1	IN THE SUPERIOR COURT OF THE STATE OF ARTICONA 2010
2	IN AND FOR THE COUNTY OF YAVARA EANNE HICKS, Clerk
3	Deputy
4	
5	STATE OF ARIZONA,) Yavapai Superior) Court No.
6) P1300CR20081339 Plaintiff,)
7) JURY TRIAL vs.
8)
9	STEVEN CARROLL DEMOCKER,)
10	Defendant.))
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12	000
13	Proceedings held before the Honorable Warren Darrow
14	000
15	Prescott, Arizona August 27, 2010
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21	Sandra K Markham, CR, RPR, CSR
22	Certified Reporter Arizona License No. 50001
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THE COURT: We are on the record with the defendant and all of the attorneys present, and Mr. King just indicated there was some kind of question regarding exhibits I think.

Mr. Sears.

MR. SEARS: Your Honor, this morning we were presented with a stack of color photographs that the State has indicated it wants to use with Dr. Fulginiti and in looking at them, there are nine separate photographs of the same fracture on the right skull side of the victim's skull. I will concede they are taken -- some of them are taken from slightly different angles or closeness to the wound, but I think they are cumulative and I see -- I think we'd, before the jury comes in rather than waste their time, let you look at them, your Honor, and determine whether it's necessary and appropriate for the State to be permitted to offer all nine of these photographs of the same injury.

THE COURT: Okay. Mr. Butner, general --

MR. BUTNER: Judge, I am not trying to load up photographs of the fracture of the right side of the skull. We have marked, I think, basically almost all of Dr. Fulginiti's photographs, right? Yes. And Mr. Hammond placed into evidence one, two, three, four, five, six photographs during his examination of Dr. Keen and then

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Dr. Fulginiti indicated that although those photographs were of some significant benefit, she needed some other photographs and I can't tell you exactly at this point in time which ones she needed.

Let's see. She needed -- well --

THE COURT: When you get them together, I would like to come down there and then at least the three of us can look at them most expeditiously.

MR. SEARS: I can show you the nine photographs very easily, your Honor.

THE COURT: Thank you. Phil, if you would hand these to Mr. Butner so he can get them in order, so when we go through them, everyone will have the same sequence.

MR. SEARS: Your Honor, in the same vein, there are three separate photographs that the State has marked of the teeth and upper and lower jaw of the victim all taken at the same time and these pictures are obviously unsettling and they appear to us to be three virtually identical pictures and I would ask that we have some guidance as to which ones, if any, of those pictures the State could offer. Seems cumulative to offer all three of them.

MR. BUTNER: I have eliminated -- we don't have the exhibit -- yeah, we do. But we don't have it on the rest of the exhibits.

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A VOICE: Yes.

Okay. Good. I have eliminated MR. BUTNER: Exhibits Number 3009, 3011, 3012, 3013, 3016, 3017, 3018, 3019, 3020, 3023, 3021, 3031. We had marked them just out of an abundance of caution. We were not actually planning on using all of them unless for some reason there was -confusion arose or something along those lines. Something that wasn't depicted in one photograph as being discussed.

So I don't think that these are cumulative, Judge. There's a necessity for all of them according to the witness.

The exhibits that Mr. Sears handed THE COURT: me, those remain? Those are the ones you want?

MR. BUTNER: I don't know exactly what Mr. Sears handed you.

THE COURT: Well --

MR. SEARS: Nine pictures of the fracture on the right side of the skull and three pictures of the upper and lower jaw with the teeth in place.

THE COURT: Phil brought those over there so that you could see.

MR. BUTNER: Right. Could I compare them? Do they have exhibits numbers on them?

> They do. MR. SEARS:

MR. BUTNER: Where are they?

1 MR. SEARS: It's your set. 09:20:14 9:20:16 THE COURT: Phil handed -- gave -- handed you that set. 09:20:19 3 MR. BUTNER: Could I get it back then and I will 09:20:20 compare it with what I just pulled out, or are you going 09:20:22 5 over the numbers while I was --09:20:27 6 09:20:29 7 MS. CHAPMAN: I think we only got -- some of these are the yeses and these are the no's. 09:20:30 A VOICE: I have some, too. These are the no's. 9 09:20:33 09:20:36 10 Hold on. There's more. These are yeses. 09:20:50 11 MR. BUTNER: Those are yeses. I don't have to 09:20:52 12 worry about those. A VOICE: Well, check it. 09:20:54 13 THE BAILIFF: Make sure you've got the same 9:20:56 14 numbers. 09:20:58 15 MR. BUTNER: Deb, why don't you check the yeses. 09:20:59 16 I don't want to get them confused now. I don't know what 09:21:06 17 that is. I thought those were no's. 18 09:21:09 THE BAILIFF: Those are the no's. 19 09:21:11 MR. BUTNER: 09:21:21 20 These are the ones I am not using. These are the yeses? 09:21:26 21 THE BAILIFF: Those are the no's. 22 09:21:29 23 MR. BUTNER: Those are no's. 09:21:30 I will take care of these. 09:21:32 24 THE COURT: Here's what we are going to do. .09:21:34 25

1 Here's what I am going to direct. The photos that will be 09:21:36 9:21:47 2 admitted are ones that the expert witness indicates actually illustrate a unique feature so there won't be 09:21:52 3 09:21:57 duplication. That will be handled in the foundation. Ιt 09:22:00 5 won't come in unless the witness testifies this is really a photo that would assist in explaining the testimony. 09:22:04 That will really be the additional test rather than just 7 09:22:07 putting photos in and then having the witness look at it 09:22:10 and say, well, this doesn't really do much more than this 09:22:14 9 or whatever. 10 09:22:18 I think there just needs to be additional 09:22:18 11 12 foundation, Mr. Sears. 09:22:20 09:22:22 13 MR. SEARS: May we assume that the State is going to use the screen for the jury to show these photographs? 09:22:23 14 Are we intending to do that, 15 THE COURT: 09:22:27 Mr. Butner? 09:22:29 16 MR. BUTNER: If that's what you want me to do, 09:22:29 17 not use the overhead, but use the screen? 09:22:30 18 That would be our request of these. 19 MR. SEARS: 09:22:33 09:22:34 20 MR. BUTNER: I don't have any objection. 09:22:36 21 THE COURT: We have done this uniformly so far, 09:22:37 22 so I would prefer that as well. MR. BUTNER: 23 09:22:38 Sure. 24 MR. SEARS: Thank you. 09:22:39

THE COURT:

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With regard to the photographs of the

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jaw, the same thing, Mr. Butner.

MR. BUTNER: There is one I think that we are using, Judge, and not more than one.

THE COURT: Here is what I would suggest. If three photos were given to Dr. Fulginiti and she's asked are there one of these that you can use to illustrate your testimony, if she has one, then fine. If for some reason she really believes two are necessary, then she could use those.

Mr. Sears.

MR. SEARS: Wouldn't it make sense rather than having this discussion constantly in front of the jury to allow the State to have a moment or two with Dr. Fulginiti and quickly go through those photographs which ones she would need? It may be we will have no objections after that. Dr. Fulginiti is a highly trained and professional person. I trust her judgment on matters such as that, but I would hate to have these kind of things in front of the jury. It seems unnecessary.

THE COURT: Mr. Sears, I agree and I think
Mr. Butner might well agree with that as well.

Please let's spend the time doing that and we do need to commence as soon as possible.

MR. SEARS: Thank you, your Honor.

(Recess.)

1 (Whereupon, the following proceedings were held in 2 open court in the presence of the defendant, all counsel, 09:43:22 3 the jury, and the Court, to wit:) 09:43:22 THE COURT: We are on the record in State versus Steven Carol Democker. The defendant, all of the 09:43:30 5 09:43:35 6 attorneys, and the jury are present and, Mr. Butner, you may call your next witness. 09:43:40 7 Thanks, Judge. I would call Laura 09:43:41 8 MR. BUTNER: 9 Fulginiti to the stand. 09:43:45 09:44:05 10 THE COURT: Dr. Fulginiti, if you would please 09:44:07 11 stand where the bailiff directs you. Then raise your 09:44:13 12 right hand and be sworn by the clerk. LAURA FULGINITI 13 09:44:15 called, sworn, and testified as follows: 79:44:25 14 THE COURT: Please be seated here at the witness 09:44:25 15 16 stand. 09:44:27 09:44:38 17 MR. SEARS: Mr. Butter, could you possibly move? You're directly between me and the witness. Another 09:44:41 18 09:44:47 19 couple of feet. Thank you. That will work. 09:44:49 20 MR. BUTNER: Here. THE WITNESS: I could stand out in the hall. 09:44:51 21 MR. BUTNER: I think he wants me to stand in the 22 09:44:55 hall. 23 09:44:57 MR. SEARS: As long as we're moving the podium. 24 09:44:58 If you would please start by stating 25 THE COURT: Δ9:45:00

09:45:03 1 and spelling your full name. 09:45:03 2 THE WITNESS: My name is Laura Fulginiti. 09:45:07 3 in Frank U-L-G-I-N-I-T-I. 09:45:11 THE COURT: Thank you. 09:45:12 5 Mr. Butner. DIRECT EXAMINATION 09:45:14 6 7 MR. BUTNER: Thanks. 09:45:14 What is your occupation? 09:45:14 Q 9 I'm a forensic anthropologist. 09:45:15 Would you tell us what a forensic anthropologist 09:45:17 10 Q 11 is, please? 09:45:23 A forensic anthropologist is someone who learns 09:45:24 12 A skeletal biology and also about all parts of anthropology 09:45:27 13 and then we take our knowledge of human anatomy and the 09:45:32 14 15 skeleton and apply it to individuals who are recovered 09:45:35 from situations where there are suspicious or unusual 09:45:40 16 17 circumstances regarding their death. 09:45:43 So you deal with people's human remains that have 09:45:45 18 0 been discovered under unusual situations? 19 09:45:53 09:45:56 20 A Yes. 21 09:45:56 Q And how long have you been a forensic anthropologist? 09:46:00 22 23 Am I required to answer that question. 09:46:01 A 24 You are required. You're under oath, too. 09:46:03 Q

Okay. Almost 20 years.

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Q And where have you been performing the tasks of your occupation as a forensic anthropologist?

A For the most part, I have worked in Maricopa County, but I am also a consultant for the northern counties in Arizona, a county in Georgia. For a while I was working with Clark County in Nevada and I've worked for the Grand Canyon National Park investigators, also.

Q And would you tell us about the education that you have had to prepare yourself for your occupation as a forensic anthropologist?

A A bachelor's degree from Colorado College in Colorado Springs and I have a master's and Ph.D. from the University of Arizona which is that evil school to the south, and I also have board certification from the American Board of Forensic Anthropology.

Q And are you credentialed to teach at any places?

A Yes, I am. I teach at Arizona State University and I have taught in the past at the Colorado College.

Q How long have you taught at Arizona State?

A Oh, I think it's going on four -- I teach every other year, so I think I just completed my fourth time there.

Q Okay. And Colorado College?

A Oh, I did my first sabbatical replacement there in 1990 and I have done several since them, so I think

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probably four or five times there, also.

- Q And what do you teach when you teach?
- A I teach advanced forensic anthropology.
- **Q** And have you done any special projects during the performance of your occupation and what I mean by special projects is I mean of an academic nature as a forensic anthropologist?
- A Are you just talking about research and things like that?
 - **Q** Exactly.
- A Yes. I have done research on the determination of age at death in skeletal remains. I have done research on the injury patterns that you see in motor vehicle versus pedestrian accidents on -- typically that's injuries to the legs from someone being impacted by a vehicle. And I have also done some experiments on different types of corrosive substances, different types of acids and what they can do to bone.
 - Q And have you taught any seminars?
 - A Yes.
 - **Q** Who have you taught seminars for?
- A Practically everyone that lives in the State of Arizona has heard my lecture at one time or another.
- **Q** Okay. But your seminars, were they directed at specific audiences?

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A The seminars, if you're referring to like the surface skeleton dead body recovery course that I teach, that is directed at law enforcement. I have taught for the Arizona Homicide Investigators Association, various civic organizations around the state. But the seminars in particular, the most numerous ones that I have done is the buried body recovery class.

- Q And have you published any of your research?
- A Yes, I have.
- Q Would you tell us what publications you have --
- A Well, okay. I present papers every year at the American Academy of Forensic Sciences and that is a -- that is the umbrella organization for forensics. It has over 4,000 members and there's a meeting every year of the national academy. There are eleven sections in the academy, so it's a huge meeting. Everybody goes and presents either a poster or a paper and I have given some form of presentation in that.

I have also published research on the acid experiments and also on the motor vehicle versus pedestrian and I did one paper on the murder of border crossers in Arizona.

- Q And how long have you been publishing so to speak?
 - A I think the first publication that I ever had was

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1990.

- Q And when's the most recent?
- A 2009 or ten. Ten I believe.
- **Q** And are you a member of any professional organizations associated with your profession?

A Yes. I am a fellow of the American Academy of Forensic Scientists. I also served as the chair of the Physical Anthropology Section. I have been asked to be the co-chair of the entire meeting for 2012, which is a huge honor for me.

I am a member of Sigma Xi which is a scientific organization. I am a member of the American Association of Physical Anthropology, and I am the chair of the Jeffrey T. Fulginiti Memorial. I can't remember what we call it. Board.

Q And what about the organization associated with the Tempe Police Department and the Butterfield Landfill?

A I have had the privilege of serving twice in the landfill. Once with Phoenix Police Department for six weeks. We were looking for a young boy, 14 years old, and the second time for the Tempe Police Department for three months. We were looking for a young mother and we were unsuccessful in both situations.

Thank you so much for reminding me of that.

Q I'm sorry to do that.

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- A That's okay.
- Q Do I --
- A I have made my peace with it.
- Q And have you received any honors?
- I was a student at the University of Arizona, and I was given an award from the Phoenix PD and also Tempe PD, mostly for just surviving the landfill situation. And then I was given an award by the Maricopa County Sheriff's office for assisting in the recovery of two young men from an airplane crash.
 - Q And have you testified as an expert witness?
 - A Yes.
- Q Where have you been qualified to testify as an expert witness?
- A Here in Yavapai. I am also in Maricopa County, and in Nevada in federal court, and in Colorado Springs.

 I'm sorry. I can't think -- I think that was District Court.
 - Q US District Court of Colorado?
- A No. It's like Superior Court, but they call it District Court.
 - Q That's right. State District Courts.
 - A Yes.
 - Q And what about your connection to Georgia? I

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didn't quite get that.

A Okay. That's kind of a weird situation. There's a Medical Examiner in Georgia who uses me for skeletal remains analysis because she doesn't have access to a forensic anthropologist.

- Q What county of Georgia is that?
- A Gouinnett County. G-O-U-I-N-N-E-T-T.
- Q And what is the main city associated with that county? Do you know?
- A I don't. I probably should know that, but I don't.
 - Q Have you ever had to testify in Georgia?
 - A No.
- **Q** And so you have testified in Yavapai County already?
 - A Yes. Yes.
- Q And been qualified as an expert witness in Yavapai County?
 - A Yes.
- **Q** When was the first time you were qualified as an expert witness in a Superior Court in Arizona?
- A That was in 19 -- in the late 90s I did a case with John Ditsworth.
- Q How many times have you testified as an expert witness in superior courts in Arizona?

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A I think it's bordering on 20, but I haven't actually ever sat down and figured it out.

Q And in this particular case, how is it that you came to be involved in the homicide investigation of Virginia Carol Kennedy?

A My first involvement came from a phone call from Sergeant Luis Huante who had let me know that they were working a homicide investigation involving a female and he wanted to give me a heads-up that her head had suffered a lot of trauma and they thought they might need me to do a reconstruction.

Q Do you recall when you received this call from Sergeant Huante?

A I don't recall the date. I was in my truck when he called me. I do remember that. I think in the interview Mr. Sears told me it was July 3rd, but I don't -- I don't have an independent recollection of that.

Q So the early part of July of 2008?

A Yes.

Q And after receiving that call, did you do anything special in preparation for being involved in this investigation?

A I informed the admitting staff at the Maricopa County Medical Examiner that we would be receiving a skull from Dr. Keen.

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Q And when did you ultimately receive the body of Virginia Carol Kennedy for your examination?

A The first time that the body was received, I didn't actually receive it myself, but it came to the office on July 8, 2008 in the afternoon.

Q And did you then proceed with an examination after that?

A I did not.

Q Are you aware of what happened with the body at this point in time?

A Yes.

Q Was it transmitted back to Yavapai County?

A Yes, it was.

Q And then when did the body get retransported back to Maricopa County for your examination?

A The body did not come back to me. Only the head came back and that was on July 16, 2008.

Q And is that what you needed for your examination?

A Yes.

Q Did you need any other body parts?

A No.

Q And so would you describe for us the process that you engage in to perform your examination, please?

A When I receive the skull pieces from a case like this, I take -- I take as much of the soft tissue as I can

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off with the scalpel or with forceps and then I macerate the bones. This involves using hot water and a non-bleach detergent to remove all of the remaining soft tissue, and then I allow it to dry and then I perform a reconstruction using glue so that essentially it's like doing a jigsaw puzzle.

Q And is that what you did in this particular case with the skull of Virginia Carol Kennedy?

A Yes.

Q And as I understand what you have told me, you began this process on July 16 of 2008?

A That's correct.

Q I am going to begin with Exhibit Number 2962 which is -- it is out. This is already admitted into evidence. Let me show you what has been admitted as Exhibit 2962 and I would ask if you recognize that particular photograph?

A Yes, I do.

Q What is that?

A This is a photograph depicting the left side of Virginia Carol Kennedy's skull. It's missing the facial skeleton and it has been reconstructed by me.

Q And would you tell us what you did in this particular case to reconstruct the skull in that fashion?

A Essentially when you are doing a reconstruction,

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you have all of the pieces of the skull and you use your knowledge of the anatomy of the bones to put them back together into a three dimensional view of what they looked like prior to them being busted apart.

So in this particular case, I had some portions of the skull that were relatively intact although fractured, and then I had lots of little pieces and I had to figure out where those little pieces went, and then I cemented them into place using -- I usually use either Elmer's glue or Duco cement, because you can dissolve it if you make a mistake. I have always been afraid to use superglue because I figured I would stick myself to the counter and no one would ever come rescue me, so...

Q Okay. I am going to get these other photographs out also.

Let me show you what is already admitted into evidence as Exhibit 2963. Do you recognize what is depicted in that particular exhibit?

- A Yes, I do.
- Q What is that?
- A This is almost a three-quarter view of the top left of Virginia Carol Kennedy's cranial vault. It's missing the inferior portion of what is called the base of the cranium and the lower jaw and the facial skeleton.
 - Q So when you say looking at her cranial vault, is

10:00:30	1	it from the outside looking down?
10:00:32	2	A Yes, it is.
10:00:33	3	Q Okay. And there's a number down in the corner of
10:00:37	4	that particular photograph; is that correct?
10:00:39	5	A Yes.
10:00:39	6	Q What is that number for?
10:00:41	7	A 08-0246 is the Yavapai County Medical Examiner's
10:00:46	8	number that was assigned to this case.
10:00:48	9	Q And do you keep it associated with the skull
10:00:52	10	while you have it in your possession?
10:00:53	11	A Yes, I do.
10:00:55	12	Q And what did you do to reconstruct that
10:00:59	13	particular portion of her skull?
10:01:00	14	A This portion was more intact than the previous
10:01:05	15	photograph, but the process is going to be the same for
10:01:07	16	all of the parts that you are going to show me today.
10:01:10	17	Q I would like to go ahead and start with 2963 and
10:01:17	18	put that on the overhead.
10:01:19	19	A Okay.
10:01:20	20	MR. BUTNER: May I publish, Judge?
10:01:21	21	THE COURT: Yes.
10:01:22	22	MR. BUTNER: And I would like to proceed in that
10:01:24	23	fashion if it's all right?
10:01:25	24	THE COURT: All right.
10:01:26	25	MR. BUTNER: Thank you.

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Showing Exhibit 2963 at this point in time.

When you reconstructed this portion of the skull, is this near the beginning of your reconstruction process or further down the line so to speak?

A This is very near the beginning. In this particular view, you can see that while the skull is fractured, not all those pieces are present as separate entities, so this particular part of the vault was relatively intact and what I am doing here is trying to maintain photo documentation of the process as I work my way through it.

Q And then let's -- I want to show you what's admitted into evidence as Exhibit Number 2965. Do you recognize what is depicted in that particular exhibit?

- A Yes, I do.
- Q And what is that?

A This is the right side of Virginia Carol

Kennedy's skull from the right view. Again it's missing

the facial skeleton, but this is more of an intact version

of the reconstruction.

Q So this is further down the line in terms of the reconstruction process?

- A Yes.
- Q And then lastly, let me, at this point in time, let me show you what is admitted into evidence as Exhibit

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Number 2964. Referring to this particular exhibit, could you tell us what is depicted there?

A This is a view of the top of the skull.

Can I see the one in your hand?

Q Yes.

A Okay. This is a view of the top of the skull and this is also at a point when the entire cranium, and just for semantic reasons, the cranium is the part of your skull without the jaw. When you have the jaw in place, it's referred to as the skull. So if I mix those just by virtue of trying to make it more easy to understand, this is the cranium, meaning it's present without the mandible and it is further along in the reconstruction process.

Q And in looking at this particular photograph
2964, is there a way to orient this particular photograph
in terms of front to back?

- A Yes, there is.
- Q How do you do that?
- A Well, there's two ways you can do it. One at the -- at the front, at the left side of the picture you can see a little triangular shaped piece of bone extending forward. Those are the nasal bones, so that's the nose. And then if you don't have that, you can look at the suture patterns which are the squiggly lines in the skull and if you know what their configuration on the skull is,

10:04:43 l you can orient it that way.

Q I have got to sort these out.

All right. Let's take a look at these on the overhead at this point in time, and there's a laser pointer right there if you need to use that to specifically reference certain portions of the photographs. Okay?

A Okay.

Q All right. Exhibit 2964 is what we were just talking about; is that correct?

A Yes. This is a view of the top of the head and the little triangular shaped bone at the front -- at the left side of the photograph is the nose and then the suture lines that I am referring to.

O I think --

A Sorry. Technology geek.

So when you go across right here, there is a suture line. This is a suture line. This is a suture line. This is a suture that runs across the top of the vault. It's called the coronal suture named for being a crown, and this suture down the middle of the back of the cranial vault is called the sagittal suture and this runs from about the top of your head down to about the midpoint of the back of your skull.

Q Okay. And sutures, what are -- where do the

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sutures come from?

A The sutures are in place in children's bones.

When little kids are little, their bones are only

partially mineralized, so there's cartilage that forms a

big band between the bony parts of the suture and as

you -- well, when you're born, what that -- the sutures

allow the parts of the skull to cross over one another, so

that the baby's head can fit out the pelvic outlet.

As you age and get to be our elderly status, the cartilage in the middle -- well, your elderly status -- when you --

- Q Why are you looking at me.
- A You were handy.

The cartilage actually turns into bone and eventually the sutures will move towards one another. They become interdigitated -- just my favorite word -- interdigitated like a zipper and essentially they form a very tight bond and then in some people as they age further, those sutures will get remodeled out and this top of the skull will be very smooth like a bowling ball.

That does not happen in everyone, but it is one indication of age.

- Q Okay. Now, in this particular picture, there are obviously other lines on the skull that are not sutures.
 - A That's correct.

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- Q What are those?
- A Those are fractures and fractures are injuries to the bone. Breaks.
- **Q** And in this particular photograph, would you point out the fractures that you observed?
- A There's a fracture that runs from the front part of the skull. This is the forehead. It comes back to a point just beyond the coronal suture and then it crosses across the top of the head and then it moves forward. There's a lot of fracturing on the right side of the skull in this area. That's called comminuted meaning complex or multiple pieces.

There's a fracture that extends from that area across, sort of a top. The part of your skull that bows out a little bit. There's a fracture across there. There's another fracture across the left side on that same part of the bone and then there's a triangular shaped fracture that comes down to meet that, and then on the left side, there's more comminuted fractures.

- ${f Q}$ You pointed to a fracture that -- and I am using the term began just because of the way the photograph is.
 - A Okay.
 - Q Please tell me if that is not the case.

But looking at the photograph, a fracture that began in essence at the left forehead area.

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A Yes. I believe this fracture starts in the right eye orbit, but we would have to look at some other pictures to see that.

- Q In the right eye?
- A I'm sorry. The left eye orbit.
- Q Oh, okay.
- A Sorry.
- **Q** So it begins some place over on the left side of the forehead?

A It's on the left facial skeleton, but before we go too far, you have to be careful about interpreting these fractures as running all the way across to here and then to here and then to here.

It's very possible that, for an example, where you see -- my hands are shaking -- when you see right here, there's this junction. It's not perfect and it makes you think that perhaps this fracture is running up here and then this fracture was either already in place or it came shortly thereafter and they ran into each other.

Do you understand what I am trying to say?

- Q I think I do. It makes you think that?
- A Yes.
- Q Is that correct?
- A Yes. Makes me think that.

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- Q Can you tell which fracture came first?
- A In some instances, you can. I believe in this case there was only one that I was able to do that kind of association with.
 - **Q** Okay. Did you get those? Thank you.

Let me show you what has been marked for identification purposes as Exhibit Number 3026.

MR. SEARS: You know it might be easier, your Honor, if I could get my copies of these photographs to keep from him having to walk back and forth, if I could have just a moment. Thank you, your Honor.

THE COURT: Yes.

MR. BUTNER:

- **Q** Okay. Do you recognize that particular photograph?
 - A Yes, I do.
 - Q When was that picture taken?
- A This was taken by me during the reconstruction process.
 - Q And that would be on -- when? What day?
- A Between the 16th and the 28th of July. Probably closer to the 16th.
- Q And what is depicted in that particular photograph?
 - A This is a photograph -- the main event of the

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photograph is the cranium and you're looking at the posterior or back view of it. So you're essentially looking at the back of the head and then you can see some of the tools that I use for reconstruction off to the side.

Q Does that accurately depict the cranium at the time that you were reconstructing Carol Kennedy's skull?

A Yes, it does.

MR. BUTNER: I would move for the admission of Exhibit Number 3026.

MR. SEARS: No objection.

THE COURT: 3026 is admitted.

MR. BUTNER: Thank you.

Q I have placed 3026 on the overhead projector, and would you tell us basically what is depicted in that particular photograph?

A This is an image of the cranium of Virginia Carol Kennedy and you are looking at her as if you were standing behind her looking at the back of her head.

Q And those squiggly lines that are sort of in an upside down "Y" pattern, what are those?

A This is the sagittal suture that I described earlier and this triangular or lambdoid shaped suture is called the lambdoidal suture and it's right on the back of your skull.

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Q And then this shows some of the fractures that were depicted in the previous photograph coming over more over the top of the skull?

A Yes, it does.

Q And is there anything of significance in this photograph that got your attention, so to speak, in reconstructing this skull?

A As I was trying to interpret -- let me backtrack a little bit. As a forensic anthropologist, one of our charges is to try to determine the type of trauma that was inflicted, so in this case it's blunt force as opposed to sharp force or gunshot.

And then also can you tell any patterns to the injury and can you sequence the blows?

window. When you shoot it twice, the fractures run into each other and intersect. If you get one that stops because there's another fracture in place, the force is allowed to escape through the first crack, and so essentially you can tell that this one was before this one, and that's the same thing that we use in a case like this.

When I was trying to interpret those questions for this cranium or for this skull, I was looking at the fracture lines and the patterns and there

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are certain characteristics about this one particular fracture on the back of the skull. There's a chip.

There's a line that comes out and stops at the suture, which makes sense because the suture acts as a release valve for that pressure.

And then there's a trailing fracture here and here, and unfortunately it doesn't show up very well, but there are other little fractures around this that are suggestive of an injury that occurred early in the event.

So that, in other words, once this compromise -- once the integrity or the structure of the skull is compromised, it will not react the same time when -- the same way when you hit it or if it is impacted in some way again.

So near the beginning, in interpreting this, when I looked at this, it has some characteristics of an event that occurred while the integrity of the skull was still intact. While the structure was still intact.

- Q So this is early in the attack, so to speak?
- A I believe it's early in the event, yes.
- Q And you were pointing with the laser pointer at this one little area right in here a lot; isn't that correct?
- A That -- that little area is a chip of the outer table. When you think of the bones of the skull, they are

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like a dual-paned window. You have an inner pane and an outer pane and in between is spongy bone and what that does is provide some cushioning for the skull. It's a protective mechanism for the brain.

So, essentially, it creates a little bit of give, I guess, is the best way to describe it.

In this particular case, you will see many areas where you have, what I refer to, as a chip of the outer table, meaning that a little piece of the bone of the outside of the skull has flaked off in response probably to an impact of some sort.

In the case of these fractures, these fractures are full thickness, meaning they go all the way through the inner and outer parts of the skull, so they're not just in the outer table. But the chips are only in the outer table.

Q Okay. So this is a missing chip of bone from the outer table of the skull?

A Yes.

Q And were there more than one missing chips of bone from Carol Kennedy's skull?

A Yes.

Q We're looking at this from the rear of the skull; is that correct?

A Yes.

1 10:17:31 Q And so this particular missing area, missing chip 0:17:37 2 is on the right side of Carol Kennedy's head; is that 10:17:41 correct? 10:17:41 A Yes. 5 And the fractures that are up in this area and 10:17:42 Q 6 going off that way, those are basically on the right side 10:17:45 7 of her skull? 10:17:49 10:17:49 Yes. Let me show you what is marked for identification 9 10:17:50 Q 10 purposes as Exhibit 3010. 10:18:25 11 A Okay. 10:18:40 Do you recognize what's depicted in that 10:18:40 12 Q 13 particular exhibit? 10:18:42 0:18:43 14 Yes, I do. A 15 What is that? 10:18:44 Q This is a photograph of the inside of the right 16 10:18:45 17 side of the skull, so now you're looking at the inner 10:18:49 table, not the outer table. 18 10:18:52 Okay. So in the photograph that's up on the 19 10:18:53 10:18:56 20 overhead, we're looking at the outside, right? Correct. 10:18:58 21 A And then this particular photograph -- who took 22 10:18:58 23 this photograph, by the way? 10:19:02 24 I did. 10:19:03

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Okay. At on or about what date did you take it?

10:19:09	1	A Around the 16th, 17th of July.
10:19:12	2	Q Of 2008?
10:19:13	3	A Actually it wouldn't have been that close because
10:19:15	4	I had to macerate. So within the week of the 16th of
10:19:19	5	July.
10:19:20	6	Q Okay. And does it accurately depict the what
10:19:25	7	you described, I believe, as the inner side of the cranial
10:19:28	8	vault?
10:19:29	9	A Yes, it does. Of one part of the cranial vault.
10:19:33	10	MR. BUTNER: I would move for the admission of
10:19:35	11	Exhibit 3010 at this time.
10:19:39	12	MR. SEARS: No objection.
10:19:39	13	THE COURT: 3010 is admitted.
10:19:45	14	MR. BUTNER:
10:19:45	15	$oldsymbol{Q}$ So placing Exhibit 3010 on the overhead, have I
10:19:55	16	got this basically oriented correctly, or should I reverse
10:19:59	17	the
10:20:00	18	f A No. If you can read the number, that's the way I
10:20:02	19	took the picture.
10:20:03	20	Q Okay. All right.
10:20:04	21	And you have some measuring implements in
10:20:09	22	this particular photograph; is that correct?
10:20:11	23	A I do.
10:20:12	24	$oldsymbol{Q}$ And what is the purpose for having the measuring
10:20:15	25	implements there?

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A The scale on the top that's got the right angle is called an ABFO ruler. It's used by dentists to take pictures of bite mars and the reason it's important is the circles get distorted when you don't have it in the right plane, so essentially they can blow bite marks up to one to one and then put the mouth over the bite mark to do the comparison and it's become a standard in forensic science to use this ruler when you're measuring defects.

The other is the case number plate that we use for photography in the Medical Examiner's office so that you have the case number and some form of scale in the photograph while you're taking the photograph.

Q Okay. And this particular view, if I understood your earlier testimony, this is on the inside of the cranial vault?

A That is correct.

Q And tell us what's of significance that is depicted in this particular photograph?

A This photo is of the right side of the head of Virginia Carol Kennedy. There's a large curvilinear fracture on the right side of her skull and what I have done is taken it and looked at the inside, the inner table. Because in some situations if an implement is used to strike a person's skull, the inside table sometimes reflects the shape of the implement better than the

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outside of the skull, in some instances.

Q And remember we were looking at that missing chip of bone from the outside?

A Yes.

Q Is there any evidence of that in this particular photograph?

A There is. At the left side of this injury there's a chip of bone and the way this happens is if you have a strike that's quick to the outside of the skull, the inside can pop off and sometimes in gunshot wounds especially when you shoot somebody with a bullet, the projectile goes through the skull and it breaks out the inner table in a very nice round bevel, but you don't see that on the outside. The outside is a clean oval.

So that would be an example of where the inner table fractures instead of the outer table, and it's usually in response to a very fast, current kind of a strike.

Q When you say fast, you're talking about then, in essence, the velocity of the object that strikes the skull?

A I think of it like something that's hitting very quickly as opposed to pushing through.

Q So that particular presence of a missing chip on the inside of the cranial vault indicated what to you

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about the blow that was struck to Carol Kennedy's head?

A Again I thought that this particular, I would refer to this as a patterned injury, and my feeling was that it was early in the event.

Q And when you say a patterned injury, would you use the laser pointer and describe or point out the pattern that you observed?

A Okay. So this is the inner table. The pattern is this curvilinear edge right here. When you strike a person's skull with a hammer, say a ball-peen hammer, you will get a round oval strike to the skull. If you use a baseball bat, you will get something that looks a lot like this edge right here. This particular edge is curved and then it has a flat edge and then it's curved again, and on the outside, it trails off.

So what -- when I first saw this, I thought to myself, okay, everything else on the skull is -- well, there is one other curvilinear like this, but everything else is sort of what we refer to as unpatterned blunt force. You can't point to it and say this kind of implement made this pattern.

This particular defect as well as the one on the left side of the forehead has this curvilinear shape and it appears to be resembling a pattern of some sort of the implement that may have been used to strike it.

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- **Q** And when you were reconstructing the skull, is this early in the process or at what point is this?
- A This is very early in the process. This is before I have done pretty much any reconstruction.
- Q Okay. And when you saw this type of patterned injury, did you begin to formulate an opinion as to what type of object was the instrument that caused this type of injury?
 - A I did.
 - Q What was your initial belief at that time?
- A I thought it looked an awful lot like a wood, a golf club wood. Not an iron, but the heavier ones that have the flat edge and then they're big and round. They have like a round face on them. I just -- I don't know. For whatever reason, when I first looked at it, I thought, wow, that looks like a golf club.
- **Q** Had you talked to Dr. Keen about the injuries received by Carol Kennedy at all before you began your analysis?
 - A No.
- Q Had you even spoken with Dr. Keen about this case before you began your analysis?
 - A No.
 - So that was simply your initial impression?
 - A Just what I thought, and I can tell you exactly

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why.

Q Please do.

A This flatness on the top of this is very unusual. It -- if you are thinking about, say, a baseball bat, the bat, when you think about it, it has a rounded edge, but it's more circumscribed. So you might see this little edge right here, but then this flatness across the top really puzzled me. I had not ever seen that before and I have seen blunt force practically in every way you can think of it, and I just had never seen that flatness across the top. And when I was thinking about the hitting surface of a golf club, that's -- that's what it looked like to me.

Q In fact, blunt force in practically every way that you can think about it, how many skulls have you reconstructed? Do you have any idea?

A I don't -- between 30 and 50 probably. But I see blunt force -- I mean our office does 6,000 plus cases a year. I have done massive power response where we see mass -- you know, massive blunt force. I have seen pedestrians. I have seen hammers. I have seen crowbars. I have seen cat paws. I have seen bats. I have seen rocks. I have seen two by fours and this is the first time I ever thought to myself, wow, that looks like a golf club. It just spontaneously came to my head. That's all

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I can tell you.

Q Would you point out -- I mean you have pointed the flat part out and you pointed out that curvature on the right side of this photograph, right? Are there other aspects of this particular photograph that caused you to think maybe a golf club is what caused this?

A The only reason that you think that is -- if you had something with that curved edge on it that didn't have anything below it, so -- I am trying to think what that might be. A cookie cutter is a good example.

A cookie cutter has an edge and if you put it down into the cookie, it cuts out an outline of the cookie.

In this particular case, when you -- when we look at this from the other side, you will see that there's a lot of comminuted fractures here underneath the curve of the impact. That comminution is caused by something. It's not a void. Does that make sense?

There's something -- you have the curve of the implement and then there's something down here that's also impacting the skull at the same time.

- Q Whereas the cookie cutter doesn't have anything?
- A The cookie cutter wouldn't do that. You would get -- the dough would push up through the middle of the cookie and you wouldn't see that.

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So to me, it's an object -- you know, if I had to draw it for you, I would draw an object that looks like -- somewhat like this. (Indicating.)

- Q In fact, at some point in time, did you make a drawing?
- I think I did. You are not going to show it to Α them, are you.
- I am going to show it to them, if the judge lets Q me.

Let me show you what's been marked for identification as Exhibit Number 3031. Do you recognize what's depicted in that particular exhibit?

- Yes, I do. A
- What is that?
- These are my attempts to trace the outline of a A golf club that was submitted to me by law enforcement as one possible implement in this case.
 - And when did you do that? Q
 - You are testing my memory. December 7 of 2009. A
- And why was it that you traced the golf club, so Q to speak?
- This implement was provided to me as a possible A implement that might have been used in this homicide, and so what I was curious about was of all the different shapes that are created by the head in particular, the

10:29:43 1 0:29:46 2 10:29:49 3 10:29:50 5 10:29:51 6 10:29:56 7 10:30:01 10:30:02 8 9 10:30:02 10 10:30:04 10:30:08 11 10:30:09 12 13 10:30:11 10:30:15 14 10:30:16 15 16 10:30:21 10:30:31 17 18 10:30:34 19 10:30:40 10:30:45 20 10:30:48 21 22 10:30:48 23 10:30:51 24 10:30:56

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head and neck of the golf club, was there any shape that resembled what I saw on the skull.

- Q And so you did this tracing?
- A I did.
- ${f Q}$ Is this an accurate depiction of your diagram as you did it on December the 7 of -- what is it?
 - A Nine.
 - Q Nine?
 - A Yes, it is.

MR. BUTNER: I would move for the admission of Exhibit 3031.

MR. SEARS: No objection.

THE COURT: 3031 is admitted.

MR. BUTNER:

Now, I'm placing Exhibit 3031 on the overhead projector. If you would for a moment, and we will probably come back to this diagram, but if you would for a moment, were you able to correlate aspects of the golf club diagram that you prepared with what we were just looking at, the photograph we were just looking at?

- A Yes.
- Q Tell us what you did to correlate?
- A Okay. So in my head, the image at the top of the this drawing labeled -- what did I call it -- metal plate. This is the hitting surface of the golf club. This is

10:31:03 1 0:31:06 2 10:31:07 10:31:10 5 10:31:13 10:31:16 7 10:31:18 10:31:19 10:31:22 10:31:25 10 10:31:26 11 10:31:30 12 13 10:31:33 0:31:37 14 15 10:31:40 10:31:43 16 17 10:31:44 10:31:47 18 19 10:31:50 10:31:55 20 21 10:31:57 22 10:32:01

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what I saw in my head when I first saw the injury to the skull.

There are other profiles. This is when you turn it over. The face is now flat to the paper and if you trace, you get this, and this is the neck.

This is me saying I don't like that, so I started over.

This is the bottom. When you hold the golf club up right and trace the bottom of the club, this is what you get.

So in my head, this is the shape that I saw when I looked at Mrs. Kennedy's head.

Q And did you compare that -- once you prepared this diagram, did you go back and compare it with the photographs you had taken of Carol Kennedy's skull?

- A Yes, I did.
- Q And how did it compare in that regards?
- A The shape is very good. The size, eight centimeters corresponds to the size of the defect.

Interestingly, when you hold the golf club in your hand and you use it rather than to strike a golf club, but as a weapon, it spins in your hand and you get a different aspect of it hitting the skull than when you would go to hit a golf club (sic).

Q A golf ball?

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- A A golf ball. Yes.
- Q Okay. And so did you see any indications of that kind of rotation of the head of the club in the injuries that you observed to the skull of Virginia Carol Kennedy?
- A I'm sorry, Joe. I just went away for a minute.

 Can you say that again?
 - Q I think I got lost in the middle of that myself.
 - A Sorry.
 - Q Try that again.

Did you see any indications -- I was asking you about the rotation --

- A Yes.
- Q -- of the golf club head --
- A Okay.
- Q -- in connection with the injuries.
- A Okay.
- **Q** Did you see any indications in those injuries of the rotation of the golf club as it struck the skull of Carol Kennedy?
- A I did see, when I had the golf club in my custody, I also had a Styrofoam cooler and I thought that if I could hit the Styrofoam cooler with the golf club, imagining that it was someone else's head -- a few people came to mind.
 - Q I bet.

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A That I could actually see an outline of what the hitting -- the effective surface was. So, in other words, you might see the shape of the object, but the effective surface is what really creates the pattern. I thought I might see that in the cooler, in the outline of the Styrofoam and when the golf club spins, it turns to the back so that the weight of it is down, and that profile did roughly match the defect on the side of the skull.

Q Let's go back to the previous photograph.

Okay. Now, we are looking, again just to clarify, at the interior portion of the skull of Carol Kennedy, right?

- A Correct.
- Q The cranium?
- A The cranium. Do you have the outside view or the external?
 - Q I do. I do. Would that be better?
- A Well, it's easier for me to talk about it that way.

The reason I like this photograph is because the shape is very clear in this picture, but from the outside, that's what -- that is what I initially saw that reminded me of the golf club.

Q Let me show you what has been marked for identification purposes as Exhibit 3027. Do you recognize

1 10:34:46 10:34:49 2 10:34:49 10:34:50 5 10:34:53 6 10:34:57 10:35:04 7 10:35:06 9 10:35:09 10 10:35:12 11 10:35:16 10:35:19 12 10:35:22 13 10:35:25 14 15 10:35:27 10:35:29 16 17 10:35:33 10:35:36 18 19 10:35:38 10:35:39 20 10:35:40 21 22 10:35:43 23 10:35:44

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what's depicted in that particular photograph?

- A Yes, I do.
- **Q** What is that?
- A This is a view of the right side of Carol -Virginia Carol Kennedy's skull, cranium without the facial
 skeleton and this is after I have reapproximated it into
 its original three dimensional state.

That being said, there is a fracture that bisects the skull from the middle part of it like this. That is a little bit off. There's a gap of about maybe two centimeters. That gap is not real? It's -- because of the deformation in the skull, I wasn't able to push it back into place, but essentially the outline of the fracture is what caught my eye.

- Q Okay. And you took this photograph during the process of reconstructing her skull in July of 2008?
 - A Yes. This is later in the process.

MR. BUTNER: I would move for the admission of Exhibit 3027 at this time.

MR. SEARS: No objection.

THE COURT: 3027 is admitted.

MR. BUTNER: Thank you.

- Q Is this a good one to use?
- A Yes.
- Q Okay. Okay. Now, looking at Exhibit 3027 on the

overhead, tell us what you saw that was of significance when you were comparing these injuries to the golf club diagram?

No.36:15 4 When you -- when I first saw the skull

A When you -- when I first saw the skull reapproximated, or reconstructed, this -- this -- the outline of this defect has a pattern to it. Whereas most of the other defects on the skull are just linear fractures, this one has a curve running into a straight line.

when I saw, in particular, this curvature right here, with this comminution in the middle or this complex fracture in the middle, I thought of the head -- you know, the hitting surface of the golf club because it has this flatness here and it tails off and then you have a long line here.

When I actually used the club as a weapon, it turns and the back side of the club would be hitting here with the nozzle (sic) and it also has this -- this shape to it if that makes sense to you.

Q Okay. So you had compared this -- then you compared this photograph with your diagram that you prepared at a later date?

A Yes.

Q And to clarify, this is on the right side of Virginia Carol Kennedy's skull?

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This hole right here is the ear. This is called A the mastoid process. This big bump right behind your ear. This is your cheek bone coming around. Your eye orbit is right here.

So this is immediately above the right cheek on the -- sort of the top side of the right side of the skull.

And looking at this particular photograph then, Q which direction would the head of the golf club be pointed at the time of striking? Were you able to tell that?

MR. SEARS: Foundation. Assumes facts in evidence.

Can you be more clear? The head --

THE COURT: Sustained.

MR. BUTNER:

We were talking about your diagram admitted into Q evidence as Exhibit 3031, right?

A Yes.

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And you compared your diagram to this particular photograph; is that correct?

Yes.

And comparing the diagram to the photograph, did Q you have the -- did you use the diagram and more or less compare the shape of the golf club to the shape of the injury?

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A Yes.

Q Would you outline the shape of the golf club as you saw it compared with this particular injury?

MR. SEARS: Misstates her testimony. She has not said that's an injury from a golf club.

THE COURT: Overruled. This question will just be viewed in terms of the prior testimony of what the diagram is about and what the reconstruction represents, so overruled.

MR. BUTNER:

Q Do you understand my question?

A I think so.

Q I am going to put your diagram back before you, so to speak.

Can you more or less outline how the shape of the golf club -- with the laser pointer, can you outline how the shape of the golf club compared with the shape of the injury?

A I think I understand what you're asking me. It's easier if we go back to -- my first impression was that this outline right here was the hitting surface of the golf club. When I used the golf club as a weapon, it turns in your hand so that when you're not controlling it to hit a golf ball and you're actually using it maybe as a club, it turns in your hand. At least it did when I used

it.

And so what ends up happening is the shaft comes up and the nozzle -- hosel -- there's a little 3 triangular shaped piece that sort of connects the golf club to the head. That piece sits to the back and the 5 head then would be coming out this way.

So you would see the strike here and then the head to the right of it.

Q I see. Okay.

So if I do that on the diagram, I think -- if you A want to argue that, this would be the shaft and the head would be over here.

Okay. We could just -- I am going to put this Q diagram back on the projector. So when you say -- and we did have a kind of a golfer here earlier who testified. He called it a hosel.

A hosel I think. I think Dr. -- Mr. Sears -- I just elevated you to Dr. Sears -- I think he called it that in the interview also. The hosel.

If would you point to what you considered to be the hosel of the golf club?

This is the shaft of the golf club coming down A and see where it expands here into a little triangle, this is actually a -- I don't know if it's really a sleeve, but it looks like a sleeve around and it creates a larger

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10:41:20 1 0:41:23 2 10:41:25 10:41:27 5 10:41:30 6 10:41:34 10:41:45 7 10:41:53 9 10:41:57 10 10:41:58 11 10:42:01 10:42:05 12 10:42:10 13 0:42:13 14 15 10:42:15 10:42:17 16 17 10:42:38 10:42:56 18 19 10:42:59 10:42:59 20 10:43:00 21 10:43:03 22 23 10:43:07

surface that's triangular shaped between the shaft and the head of the golf club.

When you hold the golf club in your hand and use it as a club, this back surface right here spins to the back and then the head comes off this way.

And so then looking at the photograph, Exhibit

Number 3027, where did you see what you believe to be the hosel area, so to speak, when you compared your diagram to the photograph?

A There are two possibilities. One is that the hosel would be right in this area or it could be creating this area right here as the golf club is hitting the skull, because you still have the rounded side here. The curvature of the head. You have the shaft coming down this way.

Q Okay. Let me show you what has been marked for identification as Exhibit Number 3014. Do you recognize what is depicted in that particular exhibit?

- A Yes, I do.
- **Q** What is that?

A This is a close-up photograph of the defect as I first saw it before any reconstruction was done.

- Q So this is very early in the process?
- A Yes.

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Q And who took the photograph?

A I did. 1 10:43:11 10:43:12 2 And this was taken during the month of July of 10:43:18 3 2008 between the 16th and --10:43:21 Α 28th. -- and the 28th of July; is that correct? 10:43:22 5 10:43:23 A 6 Yes. Does it accurately depict the skull of Carol 7 10:43:24 Q Kennedy as you saw it at that time? 10:43:29 9 A Yes, it does. 10:43:31 MR. BUTNER: I would move for the admission of 10 10:43:31 11 Exhibit Number 30, I believe, 14. 10:43:33 12 10:43:36 MR. SEARS: No objection. THE COURT: Exhibit 3014 is admitted. 13 10:43:37 10:43:40 MR. BUTNER: Sorry, Judge. 14 And you have got the measuring device, the ABFO 15 10:43:42 ruler in this particular diagram; is that correct? 16 10:43:46 17 Yes, I do. 10:43:48 A And for what purpose did you put the ruler in 10:43:50 18 Q 19 this diagram? 10:43:52 10:43:52 20 A I was trying to -- well --10:43:55 21 Q Photograph, I mean. It's a standard tool that's used whenever you 22 10:43:56 have a defect that you want to measure or photograph for 23 10:44:00

forensic science.

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Now I have got Exhibit Number 3014 back up on the

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overhead, correct?

A Yes.

Q And tell us what you noted to be of significance when you discovered this early in the process of reconstruction?

A Let me just orient first. This right here is your brow ridge, so where it come across the forehead right here and then this little shape is where the muscle that you chew with comes up and attaches to the skull.

So this is just on the fore -- kind of the right side of the skull right above the ear, as I mentioned earlier. This is the coronal suture coming down from the top of the skull, and what is of it interest here is this curvilinear fracture with all of this comminution underneath it or complex fracture underneath it. This is the outline of the cookie cutter, but this is filled in with something.

So the implement that I immediately thought of was a golf club, but it just means that whatever implement or whatever implement impacted the skull, be it an object or the skull hitting something else, has this curvilinear shape with some bulk underneath of it.

Now, you were looking at the interior of the cranial vault and comparing it for purposes of deciding what type of -- or attempting to determine what type of

10:45:43 1 0:45:45 2 10:45:47 3 10:45:50 5 10:45:52 6 10:45:56 7 10:46:01 10:46:06 9 10:46:11 10 10:46:14 11 10:46:16 10:46:16 12 10:46:17 13 0:46:18 14 15 10:46:20 10:46:24 16 10:46:27 17 18 10:46:30 19 10:46:34 10:46:36 20 10:46:39 21 22 10:46:44 23 10:46:45

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weapon caused the injuries?

A It's not so much determining the type of weapon as thinking to yourself the shape of the implement that might have been involved.

It's more common for the investigation to turn up possible items for me to include or exclude.

Q Is the interior better than the exterior in trying to arrive at those kind of opinions?

A In some cases, the interior is a better depiction of the outline of the object.

Q And why?

A But not always.

Q Why is that?

A It has something to do with the way the skull fractures or the way dual panes react to the impact. Sometimes there is so much trauma on the outside that you lose some of the detail of the object and it's more clearly represented on the inside. It doesn't happen in all cases, but in some cases.

Q And in this particular case, what gave you a better or more reliable in your opinion type of impression?

A I thought they were very similar, but the inside shows kind of the oval shape better because you can see the whole thing as opposed to this one where parts of it

10:46:56 1 are missing. 0:46:57 And when you say comminution, do you see 10:47:01 3 indications on this particular photograph of comminutions 10:47:06 to -- comminuted injuries to the right side of Carol 5 Kennedy's skull? 10:47:08 Yes. Comminuted means complex or multiple A 10:47:09 pieces. So this is a piece. This is a piece. 7 There's 10:47:12 two pieces missing from right here. There's a lot missing 10:47:14 from down here. 9 10:47:17 10 All of that referred together is a 10:47:18 11 comminuted fracture, which means multiple pieces. 10:47:20 10:47:24 12 Q Let me show you what has been marked as Exhibit Number 3024, and for identification purposes, do you 10:47:41 13 0:47:50 14 recognize that particular photograph? 15 Α Yes, I do. 10:47:52 Are you the person that took it? 10:47:54 16 Q 17 Yes. 10:47:55 A When did you take that photograph? 10:47:55 18 Q I think in the same time frame. I think we have 19 A 10:47:57 20 looked at this. 10:47:59 21 10:48:01 Q I am not sure we looked at --22 This one or another one. Okay. 10:48:02 Α 23 Right. You and --10:48:04 Q They're similar, so -- yes. 24 A 10:48:06

This is similar to another?

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Q

10:48:09	1	A The top of the head.
10:48:10	2	Q Okay. And it's very similar to the previous
10:48:15	3	photograph already admitted into evidence?
10:48:16	4	A I think so.
10:48:18	5	Q So you
10:48:18	6	A Talking about the nose sorry did I step on
10:48:21	7	him sorry.
10:48:22	8	We were talking about the nose and how the
10:48:25	9	sutures are oriented, so I think it's a very similar view.
10:48:28	10	Q So you don't need to use this photograph?
10:48:30	11	A I don't think so.
10:48:32	12	Q Thank you.
10:48:33	13	Let me show you what has been is 3030
10:49:10	14	admitted into evidence?
10:49:13	15	THE CLERK: Yes.
10:49:14	16	MR. BUTNER:
10:49:14	17	Q Let me show you what has been marked as Exhibit
10:49:23	18	3030. Do you recognize what's depicted in that particular
10:49:26	19	exhibit?
10:49:26	20	A Yes, I do.
10:49:27	21	Q What is that?
10:49:28	22	A This is an internal view of the cranial vault
10:49:30	23	with the defect that we have been discussing.
10:49:33	24	Q And did you take this photograph?

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A Yes, I did.

10:49:35	1	Q	And does it accurately depict the way that the					
10:49:39	2	interior of the cranial vault of Carol Kennedy's skull						
10:49:42	3	appeared	appeared when you were reconstructing it?					
10:49:44	4	A	Yes.					
10:49:45	5	Q	This is back in July of 2008?					
10:49:47	6	A	Yes.					
10:49:48	7	Q	There's a ruler in this particular photograph.					
10:49:51	8	Are you	the person that is holding it?					
10:49:52	9	A	Yes.					
10:49:54	10		MR. BUTNER: And I would move for the admission					
10:49:57	11	of Exhib	it 3030 at this time.					
10:49:59	12		MR. SEARS: No objection.					
10:50:00	13		THE COURT: 3030 is admitted.					
10:50:06	14		MR. BUTNER:					
10:50:06	15	Q	So 3014 is the outside view, right?					
10:50:18	16	A	Yes.					
10:50:19	17	Q	And 3030 is the inside view, correct?					
10:50:25	18	A	That's correct.					
10:50:26	19	Q	So you explained to us why you put the measuring					
10:50:36	20	device i	n there, right?					
10:50:37	21	A	Yes.					
10:50:37	22	Q	The same reason is what exactly?					
10:50:40	23	A	It's a standard measuring device used when you					
10:50:43	24	are tryi	ng to highlight a particular area or a particular					

injury.

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- **Q** So this is the inside of the right side of Carol Kennedy's cranium?
 - A Yes.
- **Q** And if you would, using the laser pointer, would you outline the injury or defect as you called it that you were talking about?
- A It's this curvilinear fracture and then underneath you have this plus sign. If you think of it as like a part of a plus, and where these fractures come together, that's typically where the impact is.

So this would be the impact and then this is the outline of the implement of one side of the implement.

Because this skull is curved, you may not get a good view of what the bottom or underside of the implement is.

- Q Okay. Now, there's kind of a line coming down this direction from the curvilinear area.
 - A Yes.
 - Q Is that a fracture line there?
- A Yes, it is. This and this and this missing bone right here is part of the comminution and then underneath here there's another impact site that is complicating the picture on the interior or bottom part of this injury.
- **Q** And in reconstructing Carol Kennedy's skull, did you formulate any opinions as to whether this particular impact was early in the attack or later in the attack?

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- A I thought it was earlier in the attack.
- Q What caused you to form --
- A In the event.
- Q In the event.

What caused you to formulate that opinion?

A When you strike an object like the skull with a heavy object, once you have lost the integrity, the imprint of the implement is not as clearly laid down as when the structure of the skull is intact.

So I like to think of it as an egg. If you were to take an egg and tap it with a tiny little hammer, you would get a tiny little hammer imprint. Once the egg is fractured and you hit it again with a hammer, you are not going to get that clear imprint again.

So in order to see this outline so clearly, in my opinion, the structure of the skull would have had to be relatively intact at that point.

Once the skull is in as many pieces as it ended up at the end of the event, that -- you wouldn't get that imprint again.

- Q And why wouldn't you get the imprint again if it's --
 - A Because --
 - Q -- if it's in many pieces like you said?
 - A Sorry.

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Q That's okay.

Because once the skull is in a hundred pieces, There's a lot of it's moving around. It's very mobile. flexibility.

So if you take it -- may I use this as a prop? If you take it and you crunch it like this, when you try to go back, then there's no resistance. pieces are all moving around. They move away from whatever is being used on them or if the head is being, you know, struck onto something else, the pieces move away along the lines of the previous fracture. In other words, there's a place for all this force to go.

When you have a skull that's intact, there's no where for the force to go, so in other words, you know, when you do this to it or when do you this to it, it resists and you get the imprint of the object.

So more or less the first blow or blows are the Q most likely to provide a definitive impression?

A If you remove the word definitively, I agree with that statement.

Q I am not trying to insert things.

I know. I know.

The earlier the blow, the more likely you get a Q better impression?

Get a better impression, yes. A

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Q Let me show you what has been marked for identification purposes as Exhibit 3025. Do you recognize what's depicted in that particular exhibit?

A I do.

Q What is that?

A This is the left side of Virginia Carol Kennedy's skull -- well, cranium -- after the reconstruction is completed to the point where it can be completed. In other words, there's no more parts that can be added because they don't fit back together. They're too -- they're too -- I want to say destructed, but that's probably not the best word.

Q Too many pieces?

A Too many pieces, and they just --

Q Too small?

A And they don't fit back. Like the facial skeleton, I was never able to get the facial skeleton to fit back on to the cranium.

Q So this is toward the end of the reconstruction process; is that correct?

A Yes. Yes.

Q And you took this photograph?

A I did.

Q All of those standard things and it accurately depicts the way that her skull looked at the time when you

were reconstructing between July 16 of 2008 and July 28 of 10:55:50 1 0:55:56 2 2008? 10:55:56 A Yes. MR. BUTNER: I would move for the admission of 10:55:57 4 Exhibit Number 3025 at this time. 5 10:56:00 MR. SEARS: No objection. 10:56:03 THE COURT: 3025 is admitted. 10:56:03 7 MR. SEARS: Your Honor, I think I could use a 10:56:07 break here if the Court's --9 10:56:08 10 THE COURT: Okay. Be a good time for the morning 10:56:10 11 10:56:13 recess in any event. 12 10:56:14 Ladies and Gentlemen, please remember the admonition and, Dr. Fulginiti, of course the rule <u>1</u>0:56:17 13 excluding witnesses has been invoked in this case. You 10:56:21 14 15 know what that means? 10:56:23 THE WITNESS: Yes, I do. 10:56:24 16 17 THE COURT: So we will be in recess. Please 10:56:24 reassemble at 11:15. Thank you. 10:56:28 18 19 (Recess.) 10:56:32 11:22:38 20 THE COURT: The record will show the presence of 11:22:42 21 the defendant, all of the attorneys and the jury. Dr. Fulginiti is back on the witness stand and has been 11:22:47 22 23 sworn. 11:22:49 24 Mr. Butner. 11:22:49 11:22:51 25 MR. BUTNER: Thanks, Judge.

11:22:52	1	Q I was going to show an exhibit, but before we do
11:22:59	2	that, let me show you what has been marked as Exhibit 809.
11:23:10	3	Do you recognize that particular document?
11:23:11	4	A Yes, I do.
11:23:12	5	Q And what is that?
11:23:13	6	A That is the report that I created in reference to
11:23:16	7	this case.
11:23:17	8	Q And you prepared that at the conclusion of your
11:23:22	9	reconstruction of the skull?
11:23:23	10	A Yes.
11:23:24	11	Q And you submitted that to what agency?
11:23:28	12	A I submitted it to Lieutenant David Rhodes from
11:23:30	13	the Yavapai County Sheriff's office.
11:23:32	14	${f Q}$ Is that a complete and accurate description and
11:23:36	15	summary of the reconstruction and investigation concerning
11:23:43	16	that reconstruction that you conducted concerning the
11:23:47	17	skull of Virginia Carol Kennedy?
11:23:49	18	A Yes, it is.
11:23:51	19	Q Does it contain your opinions concerning that
11:23:53	20	reconstruction?
11:23:53	21	A Yes, it does.
11:23:54	22	MR. BUTNER: I would move for the admission of
11:23:57	23	Exhibit Number 809.
11:23:59	24	MR. SEARS: No objection.

THE COURT: Exhibit 809 is admitted.

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MR. BUTNER: Thank you.

Q Now, let's go to that last photograph that we were looking at. We were going to look at what has been admitted into evidence as Exhibit Number 3025.

THE BAILIFF: Lens cap.

MR. BUTNER: That would help.

Q Okay. Looking at Exhibit 3025, what is depicted in that particular photograph?

A This is the left side of Virginia Carol Kennedy's cranium minus the facial skeleton and minus the jaw.

Q And what stage of the reconstruction is this particular photograph taken?

A This is late in the reconstruction. Probably as reconstructed as I was able to get it.

Q And in looking at this particular photograph, what did you determine to be of significance in the photograph?

A Well, obviously there's a lot going on in this photograph. This is the brow ridge for Virginia Carol Kennedy. So this is the bone right above the eye orbit. This is her forehead. The coronal suture comes down right here. Sagittal back here and then the lambdoidal is over here. This is the mastoid, ear canal opening, and cheek just to orient you.

So this area is referred to as the cranial

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vault and what you see here, all of these dark lines are fracture lines. So what you see is an intensely comminuted fractured skull. Each of these outlines is a single piece of bone separate from the rest of the skull.

The things that are of interest in this particular view are the number of impacts that you can observe and then also this curvilinear fracture right here. This sort of roughly approximates the one on the other side of the skull.

Q Now, you say this area right here that I am pointing at, that is the orbital area?

A It's right above the left eye, so it's the bone that buttresses the left eye.

Q I wanted to get you to say that to orient us for this picture.

And you said this is intensely comminuted?

A Yes. I mean it's -- I am not sure what the good scientific word is, but essentially this side of the skull is in many many pieces.

Q You indicated that you had done 30 to 50 skull reconstructions. How does this reconstruction compare with the ones that you have done in the past?

MR. SEARS: Relevance.

THE COURT: Overruled.

MR. BUTNER:

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1 Q You may answer.

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Okay. I would say it's in the top three worst that I have looked at.

And what makes it one of the three worst?

The number of pieces. The amount of damage that's been done to the skull, and the difficulty in reapproximating it.

And when you say reapproximating it, do you mean Q the difficulty in putting things back in position?

Α Yes.

And what made it so difficult?

The trauma actually deforms the bone, so when you're trying to do the cross -- the jigsaw puzzle, instead of having flat pieces that all connect nicely back together, you might have one where the top part is peeled up a little bit and it doesn't fit back nicely the way it is.

You might have a fracture line where some bone is missing, so you can't actually push it back into the position and then the whole cranial vault has been deformed as well. So you can't get it back to its original state, and the more individual pieces you have, the more room for error there is in the total reconstruction, because each time you create a new joint, you're adding to the whole, in terms of how much off you

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are from the original. I don't know if that makes sense, but --

Q Does the presence of -- now, you do this without the presence of soft tissue, right?

A Correct.

Q Does the presence of soft tissue make it even more difficult to reconstruct?

A Oh, yeah. It's nearly impossible.

Q And we had testimony earlier in the case from Dr. Keen who was attempting to do a reconstruction and there was still soft tissue present. Would you even attempt to do such a thing?

A Only if for some reason there -- there were -- if I was proscribed by the Medical Examiner they said you can't macerate it. That would be only time I would even attempt it and it would come along with a lot of warnings and caveats about the quality of the reconstruction.

Q In other words, warning that you might make a mistake or something because you couldn't get the bones back in position?

A Correct. Or that you wouldn't be able to actually see the injuries because of the soft tissue.

Q Looking at this particular photograph, you indicated that, if I understood your testimony, that you saw what appeared to be a number of impacts?

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A And by impacts, I mean places where you can point to, what I refer to, as a convergence of fractures.

So if we go back to your BB gun example, when you shoot it, you get radiating fractures that come out like this.

The point of impact is at the center of those radiating fractures.

So, in this case, you see a number of areas where you have converging fractures and you can begin to get some sense of how many times the skull was impacted.

Q Using the laser pointer, if you would, could you point out some of these distinct areas of impact that you observed in this particular photograph?

A Okay. If we start right here above the left eye, there's an area of convergence right here where a fracture comes in from the side and then there's this fracture coming down. That's one.

Q So pointing to your own skull, so to speak, okay, in the area of the left eye, where did you --

A It's not -- the orbital rim is right -- it's actually the bone that houses your eye. It's right above that.

- Q So the area right above the left eye?
- A Right above the left eye.
- Q There's a fracture there?

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A Yes.

Q And is that -- in your opinion, is that a distinct area of impact right up above the eye?

A Yes.

Q Okay. So there's that one and then moving from there?

A If we go across to the ear canal as a point of reference, this is where the Q-tip goes.

Q Right.

A If we go straight up from that, there is also a point of impact with a little area of missing bone right in the center and three fractures. At least three. It's hard to tell from the photograph, but at least three fractures coming out. That's two.

If we move up from that to a point roughly halfway up the side of the vault, there's another area of convergence. That's three.

If we move back from that, this area is a little bit more difficult to interpret because we are missing quite a lot of the outer table, but you have at least one more right there. That's four.

If we go up from there, conservatively this is five. It could be also six and seven, but conservatively we will say there's one here.

Six.

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You get the picture. Multiple.

Q What about, okay, what about up on top where that "V" comes down?

A The "V" comes down right here and you have a little bit of depressed fracture right here, so again this could all be one event or it could -- if you were less conservative, you could say there is one here and one here.

But given the fact that we -- how do I want to say this? I think, in terms of scientific evidence, it's better to err on the side of caution, so to speak, and be conservative because if you had a wider base to your implement or to the object that the head is impacting -- so, in other words, it could be something hitting the head or the head hitting something else. If it has a wide base to it, you could conceivably see a larger area of convergence than you would, so instead of dissecting it out and saying it's two, you would say it's one.

Q I see. Okay.

And in looking at this particular photograph, are there any indications in terms of the way that these fractures appear in the photograph, that cause you to formulate some sort of an opinion as to what type of object or objects caused those fractures?

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The only one that gives you any kind of a pattern A is this curvilinear that is on the right side, right behind -- it's kind of in the cheek area. If this is your cheek bone coming across, it's just above that. You have a little bit -- see the scalloping along the edge right So you have a little bit of a curve, curve, curve, curve, and then this curvilinear right here. That sort of roughly looks like the other side where you might have a hint of a pattern, but it's no where near as clear as it is on the other side.

And you have an explanation as to why you might Q not have as clear a pattern on this side as you would on the right side?

- Α Yes.
- What is that? Q

That if the -- if my supposition is correct, that A the impact to the right side of the head was early in the event, then the skull is compromised. It's moving. It's not providing as much resistance to the object or item that's it's impacting, and it cannot mimic exactly the contour of what is being used.

And this kind of fracture, this is -- or these Q kind of fractures, what are they called again?

- Comminuted. A
- And that reflects multiple pieces? Q

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A Multiple pieces. So there's lots -- by the time these fractures are in place, the skull is literally not resisting at all at this point. It's so, I don't want to use -- let give me a second to think of a word that -- it's compromised. It -- all these little pieces are now moving and they're held together by soft tissue, but they're not forming the protective barrier that they used to form before they were compromised and so they're just in motion constantly.

Q And when you say compromised, are you talking about the structural integrity of the skull?

A Yes. The protective barrier that it provides for the brain is gone at this point.

Q So when it's -- so when it's not compromised, it has more strength?

A It has more ability to resist and therefore you get the imprint of the object -- you can get the imprint of the object.

Q And then once it has been compromised, then it has less ability?

A Less ability to show that, or to reflect that is a better way to say it.

Q Let me show you what has been marked as Exhibit Number 3029. Do you recognize what is depicted in that particular exhibit?

11:36:17	1	A	Yes, I do.
11:36:18	2	Q	What is that?
11:36:19	3	A	This is a close-up view of the curvilinear
11:36:22	4	fracture	and also the one that I was describing above the
11:36:25	5	left eye	•
11:36:25	6	Q	And this is a photograph that you took during the
11:36:29	7	course o	f your reconstruction between July the 16th and
11:36:32	8	July 28t	h of the year 2008?
11:36:35	9	A	Yes.
11:36:36	10	Q	Does it accurately depict that portion of the
11:36:41	11	skull of	Carol Kennedy as of that date?
11:36:43	12	A	Yes, it does.
11:36:44	13		MR. BUTNER: I would move for the admission of
11:36:46	14	Exhibit 1	Number 3029.
11:36:49	15		MR. SEARS: No objection.
11:36:50	16		THE COURT: 3029 is admitted.
11:37:07	17		MR. BUTNER:
11:37:07	18	Q	Okay. Again we have the scale in the photograph,
11:37:10	19	right?	
11:37:10	20	A	Yes.
11:37:11	21	Q	And that scale is present for what specific
11:37:15	22	purpose?	
11:37:15	23	A	As a standard way to illustrate or highlight an
11:37:19	24	area of	interest or a defect of interest.
11:37:22	25	Q	When we were talking about the previous

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photograph that was up on the overhead, you were talking about scalloping. You used that term and I was wondering if that is present in this particular photograph?

A Yes.

Q Would you point to what you were speaking of when you said scalloping?

A When you look at the edge of this particular defect, the total defect is curvilinear, meaning it has a curve and it's also straight, so it's a line, but it's curved. Within the curve, you can see these little half circle shapes. There's one here. One here. And then maybe one here.

So what -- what you might deduce from that is there's some sort of object that has that rounded kind of an edge to it.

Q Okay. And is that part of what you used in formulating your opinion about the type of object that caused these injuries?

A Yes.

Q Is there anything else of significance that's depicted in this photograph that caused you to reach your conclusion as to what type of object caused the injuries?

A I think this is a better view of the injury above the left. You can actually see the plus sign that is here and this right here would be the point of impact and then

11:38:55 1 the fractures are radiating outward from it. 1:38:57 2 So what you're pointing at -- I am going to walk 11:39:01 3 in front of this for a moment -- but this -- what is this 11:39:07 little area right here? Right at the --5 This right here? 11:39:09 A 6 -- front part? 11:39:10 Those are the nasal bones. So your nose is half 7 11:39:11 bone, half cartilage. And the hard part right close to 11:39:14 8 9 your skull is bone, and then it turns into cartilage. 11:39:17 That is what you can wiggle like in Bewitched. 11:39:19 10 11 11:39:23 Q Okay. So the hard part is close. That's the 11:39:23 12 A orientation and then this little edge that you can kind of 11:39:25 13 make out where the bone changes color, that's the edge of 1:39:28 14 the eye orbit, and then -- so you can see rather than 15 11:39:31 being right in the edge of the orbit itself, it's up above 11:39:34 16 17 it. It's on the forehead. 11:39:38 And so that indicated to you a point of impact? 11:39:40 18 Q A Yes. 19 11:39:45 11:39:45 20 Q On the skull? 11:39:47 21 Α Yes. 22 And would you point to that area again? 11:39:47 Q 23 A Right here. 11:39:49 On your own skull. 11:39:49 24 Q

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Oh, on me. (Indicating.)

11:39:51	1	Q Right there.
11:39:54	2	And where is the plus sign on the photograph
11:39:57	3	that you're talking about now?
11:40:02	4	And so that's the same area on the skull of
11:40:04	5	Virginia Carol Kennedy?
11:40:05	6	A Yes.
11:40:07	7	I feel like we're on Sesame Street. Point
11:40:09	8	to your nose.
11:40:11	9	Q Simon says.
11:40:13	10	All right. Now, if I understand your
11:40:18	11	testimony then, there's this area right above the left eye
11:40:23	12	where there's this fracture; is that correct?
11:40:25	13	A Yes.
11:40:26	14	Q And is that another one of those separate
11:40:28	15	distinct points of impact?
11:40:29	16	A Yes.
11:40:30	17	Q So how many does that make?
11:40:31	18	A I think we were up to seven on this side of the
11:40:35	19	skull. Six, seven.
11:40:39	20	Q Then there's a fracture line, I think, is that a
11:40:42	21	fracture line that runs straight up from that?
11:40:45	22	A Yes. Right here.
11:40:47	23	Q All right.
11:40:48	24	A That is a fracture. This is a fracture right
11:40:50	25	here.

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- **Q** Right across the top of that area?
- A Sort of turning this larger triangle into a smaller triangle.
- **Q** And is that indicative of a point of impact up near the top of the photograph?
- A What this could be -- you see how it stops here and here? It means that whatever -- when this particular fracture was put into place, probably these two fractures were already there.

So what you might surmise is that this outline is an object.

Now, having said that, there's so much destruction on the skull, that making those kind of specific interpretations is more and more difficult the more fractures you have.

So -- do you understand what I am trying to say? If this was the only injury you had on the skull, you would be tempted to say this was the outline of something, but given the fact that we already have a lot of injury and we also have a lot of lack of integrity to the skull, lack of structure, it's less easy to be so definitive about that particular fracture. It does not look like there was an impact here and an impact here. Let me put that it way. I think this fracture is secondary to something else.

11:42:13	1	$oldsymbol{Q}$ Now we have got numbers from the scale going
11:42:16	2	along the side of the photograph. One, two, three, four,
11:42:20	3	five. What are those increments of distance?
11:42:24	4	A A centimeter. One centimeter.
11:42:28	5	Q So
11:42:28	6	A The smaller ones are milliliters. Ten
11:42:31	7	millimeters to a centimeter.
11:42:33	8	${f Q}$ So we have got this major piece here is
11:42:37	9	approximately how many centimeters long then?
11:42:40	10	A Well, I think if you measure from this edge right
11:42:43	11	here, you would get one, two, three, four and then it goes
11:42:47	12	off, so at least five centimeters long.
11:42:51	13	Q And how many scalloping indications did you see
11:42:56	14	in that particular section of injury?
11:43:00	15	A You know, it's hard to tell, but in this view it
11:43:02	16	would seem there are at least three. I see one right
11:43:09	17	here. One right here, and then one right here.
11:43:12	18	$oldsymbol{Q}$ Does that is that caused by multiple blows or
11:43:17	19	can it be caused by just one blow?
11:43:20	20	MR. SEARS: Object to the form of the question.
11:43:21	21	Assumes there were blows at all. Dr. Fulginiti uses the
11:43:25	22	term impact.
11:43:26	23	MR. BUTNER: I will withdraw that question and
11:43:27	24	use that term.

11:43:30 25

Q What does that indicate in terms of the number of

11:43:33 1 impacts, if anything? 1:43:34 2 It could be interpreted either way. If you had 11:43:38 3 an object that had scalloping along the edge of it, it 11:43:41 could be one impact. If you had an object that had a more 5 circumscribed curve, it could be multiple impacts. 11:43:46 6 Let me show you what has been marked for 11:43:50 7 identification purposes as Exhibit Number 3021. Do you 11:44:09 recognize what's depicted in that particular exhibit? 11:44:21 8 9 Yes, I do. 11:44:23 A 11:44:24 10 And what is that? Q 11:44:25 11 A This is Virginia Carol Kennedy's face. The lower jaw and portion of her face? 11:44:29 12 Q 13 The bony portion. I should be more 11:44:32 A 1:44:34 14 specific. 15 Did you take this particular photograph? Q 11:44:35 Yes, I did. 11:44:37 16 11:44:38 17 Q It was taken in the time frame on July 16th through July 28th of the year 2008? 18 11:44:42 19 A Yes, it was. 11:44:45 11:44:47 20 Q Does it accurately depict how that portion of her skull appeared at the time you were doing this 11:44:51 21 22 reconstruction? 11:44:55 23 Α Yes, it does. 11:44:55 I would more for the admission of 24 MR. BUTNER: 11:44:56 25 Exhibit Number 3021 at this time. 11:44:59

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MR. SEARS: Could I have just have a moment, your Honor?

THE COURT: Yes.

(Discussion held off the record.)

MR. SEARS: No objection.

THE COURT: 3021 is admitted.

MR. BUTNER:

Q Okay. Placing Exhibit 3021 on the overhead, did you observe anything of significance in this portion of Carol Kennedy's skull during your reconstruction?

- A Yes.
- Q What did you find to be of significance?
- A There are actually several things that are of interest in this particular view. This is a three quarter view of the left side. This is her maxilla, her cheek bones, and this total piece represents her facial skeleton.

This is the mandible or the lower jaw.

The things that are of interest to me are that the jaw itself is not fractured in any way and the teeth are not fractured.

So obviously -- well, maybe not obviously to you. Sorry. There's a suture that comes down right here that separates the cheek bone from the maxilla or the face bone. That suture is a little bit opened up. I don't

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know if you can tell that from this photograph.

When you look just to the left of that, now we're moving on to the face, there's a missing bone -- area of missing bone right here and then there is a fracture that travels across. This is the nasal opening right here, so there is a fracture and then up here, there is a little fracture, and on the other side, it's a very similar presentation.

So, the thing you have to ask yourself is why are the teeth not fractured? Why is the jaw not fractured and yet you have these points that would appear to be impact points.

So there's two ways to think about that.

One is that these are blows that were situated on the upper part of the face, not involving the teeth or the lower jaw.

The other possibility is that the trauma that was being laid down on the cranium somehow put pressure on the face and caused these fractures.

I think the more likely explanation is that there were some blows to the face.

- Q Okay.
- A I'm sorry. Impacts to the face.
- Q Impacts to the face. So we saw, in previous testimony, we saw a photograph of Virginia Carol Kennedy

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where she had blackened eyes and what seemed to be a fracture right between her eyes and is that evident in this particular photograph? Not the blackened eyes, obviously, but the fracture between her eyes?

- A Yes.
- **Q** Would you point to that area?

A Okay. When you're -- I think we talked a little bit earlier how I can't get the facial skeleton to reapproximate to the rest of the vault. Right at the top of these ascend -- this is called the ascending ramus. It just means a branch that is going up. There's a suture here and there's one over here.

These are essentially the connection points from the facial skeleton up to the cranial vault and those have been popped off. So her face has been separated from the rest of the vault.

The nose, the pieces of the nose should be right here. They're not. They are missing or they're so fractured. We saw a little piece of them on an earlier photograph.

So the fracture that you're referring to is right across the bridge of the nose right here. This line. It should be connected to the cranial vault and it's not. So there's a fracture across there.

And that would explain why you might have a

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fracture that you were looking at earlier.

- Q And then you were talking about those ascending bones -- I forget the name that you used -- ascending something bones?
 - A Branches.
- Q Those bones, you say they were popped meaning they were disconnected from the cranium?
- A Yes. The term is diastatic fracture. That means there is a fracture in the suture. I use the term popped because I think people have a better way of visualizing that. It means that when the suture is like this, it's been pulled apart like this. So essentially on both sides of her face, the facial skeleton is separate from the rest of the skull.
 - O So her face is --
 - A Right here.
 - Q -- is right here?
- A If you push with your fingers, you can feel a little divot. Those are your sutures, so essentially all of this piece of her is off the rest of the vault.
- Q Okay. And you indicated your opinion concerning what type of impact caused that type of separation of the lower part of her face from her forehead area?
- A When you see people who have been traumatized in the face, oftentimes if the blow is directly to the face,

you will have chipped teeth or if the blow comes from the side, you will have fractures in the jaw. We don't have 11:50:44 3 either of those.

So what that tells me or what it suggests is that the blow is higher on the face. In other words, the mouth is not as involved.

Now, I forgot to mention one thing. There's a particular type of fracture called a La Fort fracture. It's named for the man that described it.

It comes across the teeth -- the top of the teeth all the way across here and on the other side.

What this essentially does or effectively does is take the bone that houses the teeth, and now it separates from what we called the mid face. So the teeth are separate. This part of the face is separate, and the vault is separate in this case.

The impact sites are on both cheeks right here in the front.

So, how do you interpret that? You could interpret it that there's some kind of big object that this thing is -- that this -- that is impacting the face high, or individual blows. One here. One here. Or some other form of injury. Maybe the mouth is on the ground and the head is pushed off of it. I mean, that's a possibility.

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Q You are pointing now to the bench area, so to speak, there of the witness stand. Can that type of injury occur if a person's forehead is thrust down against a sort of a stationary object with a flat surface like that?

A I am not -- I am not certain that you would see as much trauma as we see on this particular skull. I think it's possible that some of the trauma was done in that manner.

Q And is that the blunt -- the large blunt surface that you were describing?

A Yes. I mean it could be -- it could be that the face is down on a hard object. It can't move. In other words, there's no -- the resistance is provided by the hard object. The ground, the table, whatever. The wall. It could be up against a wall.

So essentially the force is coming from the top and so you're getting these fractures.

Now, what you would be more, I think, more likely to see is dental fractures and the nose, because those things protrude forward.

These -- the cheeks in most people are protected. There's a little bit of fat there and they're also pulled back away from the face. So they're not sticking right out there saying, here, you know. That is

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the point.

So my gut tells me that those two fractures are the result of impacts higher up on the face.

- Q And when you say those two fractures, which ones are you talking about?
- A The one -- the one on each check. They're kind of mirror images of each other.
- Q Would you point to them with the laser pointer what you're speaking about?
- A This -- this area right here. And there's one on the other side that looks very similar.
 - Q Are those what you called the La Port or La --
- A No. La Fort is lower down. La Fort actually separates -- separates the maxilla all the way across right here. So, in essence, this fracture travels all the way across and these two parts -- this part and this part are in two pieces.
- Q So can the La Fort fracture -- in your opinion, did the La Fort fracture occur at the same time as those other fractures up above?
 - A It's possible.
- Q And what kind of a force or impact do you believe would cause that?
- A It could be a sheering force like a side to side motion where the top jaw is held in place and then the

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face is kind of moved off of it.

More than likely it's the result of all the other trauma that we are seeing and it's kind of, I don't want to say a side effect, because it trivializes it, but it's -- it's a fracture that isn't occurring in and of itself. It's the result of another fracture.

Q And did you see indications in the previous photographs and in your reconstruction that, in fact, could have happened in this case?

A I think that there are tremendous number of impacts to this skull that caused these fractures and that trying to dissect out how many or where is very difficult.

Q How many did you think occurred at a minimum?

A My minimum number was seven, but I think that's a very conservative number.

Q I am missing one photograph. Let me show you what has been marked as Exhibit Number 3023.

Showing you what's been marked as Exhibit 3023, do you recognize what is depicted in that photograph?

A Yes, I do.

Q What is that?

A This is what is called -- what is referred to as the basal skull or the base of the cranium. It's the bottom of the skull. In this particular photograph, again

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the facial skeleton is missing, but you're essentially looking at the bottom of the skull, if you took it from the top and turned it over and looked at it.

Q And you took this photograph during your reconstruction between July 16 and July 28 of 2008?

A Yes, I did.

Q Does it accurately depict the basal portion of Carol Kennedy's skull at that time?

A Yes, it does.

MR. BUTNER: I would move for the admission of Exhibit Number 3023.

MR. SEARS: No objection.

THE COURT: 3023 is admitted.

MR. BUTNER:

Q Placing this on the overhead.

A Can you turn it so that the big hole is on the bottom?

Q Yes. I was going to put it to the right, but I understand.

Okay. Looking at 3023 on the overhead, can you tell us what's depicted in this photograph?

A This is the bottom view of Carol -- Virginia Carol Kennedy's cranium.

Q And are you able to see evidence of the injuries in this particular photograph?

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11:59:03	20
11:59:06	21
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- A Yes.
- **Q** Would you point to those for us please with the laser pointer.
 - A I will just orient you first.
 - Q Please do.
- A This what I just referred to as the big hole, its technical name is foramen magnum, which means big hole. The spinal cord goes into the brain right through this hole.

These are called the condyles. That's where your vertebral column attaches to your cranial vault.

This right here is collectively the base cranium. These are your check bones coming forward and these are the eye orbits.

Just to give you an orientation, if the facial skeleton were in place, you would see the mouth right about here and you would see the bottoms of the teeth coming out of the screen towards you.

What we see in this photograph are lots of fractures and missing bone. There's fractures through the left eye orbit right here that we have been talking about. You have seen it from up here, but you can see that it also transmits through the eye orbit.

Both of the eye orbits are, what we would say, are blown out and what that means is that --

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- Q If I could interrupt you for just a moment?
- A Sure.
- Q If you go back to the previous eye orbit, since we are looking at this up from the bottom, right?
 - A Yes.
 - Q I should say correct.

Then that would be the left eye orbit; is that right?

- A That's right -- that's correct.
- Q Yeah.
- A Left, correct.
- Q Left, correct. Thank you.

Okay. So looking at the left eye orbit, you see -- you are pointing to, as I understood your testimony, a fracture going through that?

A What this essentially is, the fracture is up here on the forehead where we were, that I was pointing to earlier, but the bone itself is actually cracked all the way through the eye orbit. So that outer portion of the eye orbit is present as a separate piece.

And then all of this black area is missing bone. What that means is it's so fractured and so comminuted that I actually could not reconstruct it.

So part of the reason for that is that those bones that form the sort of inside of your nose where if

12:00:26 1 you have sinus issues, they're really fragile. 2:00:30 2 very delicate and they break very easily and they tend to 12:00:33 break into such tiny little pieces, that you can't -- you 12:00:36 can't do anything with them. 5 So essentially that is what you are seeing 12:00:37 6 here. This whole area. 12:00:40 7 12:00:42 8 12:00:45 9 and literally just kind of exits wherever it can. 12:00:48 10 12:00:52 11 12:00:55 Let's pause at this point in time. 12:00:59 12 Q 12:01:02 13 I am losing --A 2:01:03 14 We're going past --Q 15 Are we losing our focus? 12:01:05 Α We will come back. 12:01:07 16 12:01:08 17 A Okay.

And we call it blown out. You see it a lot with in gunshot wounds where the gas goes into the skull

And then there is a fracture here that we have talked about that you can see on the side of the --

Ladies and Gentlemen, we will take THE COURT: Please remember the admonition. the noon recess. Please reassemble at 1:20. We will start as soon as we can after that.

> Court is in recess. Thank you.

> > (Recess.)

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Record will show the presence of the THE COURT:

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defendant, all of the attorneys, and the jury, and the witness Dr. Fulginiti is back on the witness stand.

Mr. Butner, you may resume your direct examination.

MR. BUTNER: Thank you very much, your Honor.

Q Okay. Looking again at Exhibit Number 3023 and we were talking about the fractures that were evident in this particular photograph; is that correct?

A Yes.

Q And you had pointed out to us the fracture of the left or orbital bone on the skull of Carol Kennedy; is that correct?

- A Yes.
- Q And would you use the laser pointer.
- A Right here.
- Q Point to that for us.

Okay. And then you had moved to a different fracture at that point.

A I was just talking about the area of missing bone in here. This would be the bottom of the nose if the nose were present.

There's a fracture -- and what you're seeing here are the extensions of the fractures that are on the side of the skull coming down underneath. So it's a three dimensional view.

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There's fractures along the suture lines here and on this side here and then along the petrous ridge here and here.

And essentially the -- these fractures occur when -- because the bottom of the skull is literally like taking two things and placing them adjoining one another, when a skull is impacted, they kind of just pull apart They're not together necessarily like the sutures on top of the skull.

Does that make sense?

- I think so.
- They just kind of lay along side one another.
- I think you called the sutures on the top, was that interdigitation?
 - Okay. Where they fit together?
 - They zippered together.
- On the bottom they're more or less along side one
- But in this case what has happened in those
- They have been popped apart, pulled apart from one another.
 - And what type of impact or impacts caused that? Q

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A Lots of different things. You can see it in a car accident. You can see it in blunt force. You can see it in gunshot wounds.

- Q In this particular case, what caused it?
- A Blunt force.
- Q And how many fractures are visible in this particular photograph? Can you tell?
- A Yeah. I mean I can sit here and count them.

 Many. Multiple. Do you want me to count them?
- **Q** Well, let's try to. Okay. Starting with the left orbital fracture, right?
- A This is the one we were talking about earlier.

 This is all missing bone that's been fractured out.

 There's one along this edge right here. There's one along this orbit right here. There's this fracture that goes up from the eye on to the side of the cranial vault.
 - So the right orbital bone was also fractured?
 - A Yes.
- **Q** Could you tell where the area of impact was that caused that fracture?
- A This fracture leads -- leads backwards into the curvilinear fracture that we were discussing earlier.

 There's two possibilities. One is that it ran forward from that. The other is that it's running backwards from the facial injury.

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Q And can you tell which occurred first? The one -- the fracture that's toward the rear or the fracture that's toward the front?

Do you understand what I am asking?

- A Yeah. I think so.
- Q Were you able to --

A I'm not sure. If you remember, on the face, we had the fractures here and here, and then these two fractures -- these two sutures are pulled apart. These -- this fracture on the right side of the skull is curved like this and then it has a fracture running forward this way.

So this fracture is what you are seeing coming into the eye orbit, and it's possible that when the face was impacted, that fracture was created. It's also possible that the curvilinear fracture created that fracture running into the orbit.

Is everybody following that?
Okay. Good.

- Q So let me just superimpose a picture of the right side of the head for you to discuss that. 3027 is the exhibit number. And if you could point to what you were speaking about?
- A This is the curvilinear fracture. This a linear fracture that runs from the mid-point of the impact

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forward. Runs into the eye orbit.

So it can either be from this impact running forward or it can be from an impact to the face running backward and what's happened here is that more than likely these two blows are separate or impacts are separate, but they have joined up because that's the weak point along the skull.

Q Okay. Now, going back to this view of the base of the skull -- base of her skull, right?

A Yes.

Q Okay. Go ahead.

A This is -- don't.

Q A fracture on the right-hand side of Carol Kennedy's head, right?

A Right.

just see the edge of the cheek bone coming forward. There is a little fracture right there. There is also that suture, and then there's a little fracture running along this edge right here. And this bone is actually pulled outward, and the reason for that is that it's been -- it's either the bone is deformed or the bone underlying it, so you can't reapproximate them because the trauma has deformed the bone.

So it's offset a little bit. If you look at

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this side, this one is laying a little bit nicer into its position and this one is pulled out a little bit.

Q Does that deformity of the bone in that area indicate the type of impact in terms of force?

A No. It's just another supporting evidence for blunt force.

Q I see. Okay.

So how many fractures have we gotten to at that point?

A We are on six.

Q And how many impacts have you seen that are connected with those fractures, if you can tell us?

A I think in some respects, I won't say it's a misleading question, but it's not quite right. Not quite correct.

Q Can you tell --

A I can tell you that there's an impact right here on the left orbit.

There's an impact here, but whether it's down here on the face or up on the vault is hard to say. All of these fractures are probably due to what's happening up on the vault.

So they're collateral fractures.

Q Okay.

A So I don't think -- I don't think necessarily

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you're seeing impacts to this surface. You are seeing the result of impacts on other surfaces.

Q Okay. Thank you.

A Yeah.

Q Okay. So moving from the left side where the deformity of bone existed?

A So then you have a fracture that is running -probably the continuation of this fracture on the right -left -- right cheek.

Q Does that run down into the base of the skull?

A Yes.

Q Is that what is referred to as a basilar skull fracture?

A It can be. Any -- any fracture that is at the base of the skull could be a basilar skull fracture.

Often times when medical examiners use that term, they mean across the bottom of the skull, like a hinge fracture.

Then there's -- these are the petrous ridges. That is what houses your ear canal and those are the places where the bone lies up against one another and those are pulled apart.

Now, that is just collateral damage from the damage to the rest of the skull.

O And --

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A So if we continue on from there, we are like at seven or eight. We come over there. There's nine. Ten Eleven. Maybe 12 fractures of the basilar skull.

Q The number of fractures, is that one of the factors that caused you to make a determination that this was one of the worst three that you had seen?

A It's really more about the amount of damage and the number of pieces.

Q Let me show you what has been marked as Exhibit Number 3028. Do you recognize what is depicted in that particular photograph?

A Yes, I do.

Q What is that?

A Is it admitted?

 ${f Q}$ Not yet. So you have to keep it down from the jury.

A I have to tell you. Oh, right. I lost track of the sequence. Sorry.

Okay. So this is a photograph that I took of the unreconstructable bone fragments that were remaining after I did the reconstruction.

Q So you took this at basically the end of your reconstruction process?

A I took one at the beginning and then one at the end, yes.

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Q And does its accurately depict the number of fragments you were unable to put back in place so to speak?

A Yes.

MR. BUTNER: I would move for the admission of Exhibit Number 3028 at this time.

MR. SEARS: No objection.

THE COURT: 3028 is admitted.

MR. BUTNER:

Q And approximately how many fragments or pieces of bone were left over?

A A couple hundred.

Q Had you made efforts to put these back in place?

A For these fragments, no. I look at all of them to see if there is any kind of anatomical or morphological structure that I recognize and sometimes you can pick out the nasal bones or some other little fragment that you recognize, but in terms of their utility in the reconstruction, they're not that helpful, because they mostly come from the sinuses and those are very fragile structures.

Q So these are the areas of the sinus bones in the face and then that large gaping area that we were just looking at from the base of the skull where the pieces were no longer there and couldn't be put back in place?

13:34:28	1	A Yes. And also from the chips of the outer table
13:34:30	2	that we looked at earlier.
13:34:32	3	Q And the outer table being those pieces out on the
13:34:35	4	side of the skull, the cranium area from each side?
13:34:38	5	A Yes.
13:34:39	6	${f Q}$ Let me show you what has been marked as Exhibit
13:34:46	7	3008. Do you recognize what's depicted in that particular
13:34:59	8	exhibit?
13:34:59	9	A Yes, I do.
13:35:00	10	Q What is that?
13:35:01	11	A This is Virginia Carol Kennedy's skull prior
13:35:05	12	after the maceration process, prior to the reconstruction
13:35:08	13	process.
13:35:09	14	Q So this is how you began the process?
13:35:11	15	A Yes.
13:35:11 13:35:11	15 16	Q With these pieces?
13:35:11	16	Q With these pieces?
13:35:11 13:35:12	16 17	Q With these pieces? A Yes.
13:35:11 13:35:12 13:35:14	16 17 18	<pre>Q With these pieces? A Yes. Q And you took this photograph?</pre>
13:35:11 13:35:12 13:35:14 13:35:15	16 17 18 19	<pre>Q With these pieces? A Yes. Q And you took this photograph? A Yes, I did.</pre>
13:35:11 13:35:12 13:35:14 13:35:15 13:35:16	16 17 18 19 20	<pre>Q With these pieces? A Yes. Q And you took this photograph? A Yes, I did. Q This is as it appeared on July the 16th of 2008?</pre>
13:35:11 13:35:12 13:35:14 13:35:15 13:35:16 13:35:20	16 17 18 19 20 21	<pre>Q With these pieces? A Yes. Q And you took this photograph? A Yes, I did. Q This is as it appeared on July the 16th of 2008? A It would have been a few days later because the</pre>

MR. SEARS: No objection.

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13:35:30 1 THE COURT: 3008 is admitted. 3:35:34 2 MR. BUTNER: 13:35:37 So if I understand your testimony, you began at Q this point with the reconstruction after you had --13:35:53 Α Macerated. 13:35:57 5 -- macerated the skull; is that correct? 6 13:35:58 7 A That's correct. 13:36:01 And then you began putting all of these pieces 13:36:02 Q back into place? 9 13:36:06 Yes. 10 A 13:36:07 11 In addition to the diagram of the golf club, did 13:36:07 Q you prepare any other diagrams in connection with this 13:36:27 12 13 case? 13:36:29 3:36:29 14 Α Yes, I did. 15 How did that come about? 13:36:30 During the defense interview I was asked about 16 13:36:33 the six views of the cranium and Mr. Sears asked me if I 17 13:36:36 could produce those six views from my photographs. 13:36:40 18 By way of diagram? 19 13:36:44 20 A By way of diagram. 13:36:45 13:36:47 21 Q And did you do that? Yes, I did. 22 13:36:48 A The way this was put together, all of the 23 Q 13:36:48 diagrams were put together including the diagram of the 24 13:36:53 golf club, but let me show you what has been marked as 13:36:56 25

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exhibit 810. Could you take a look at that, please.

- A Okay.
- **Q** Is that all of the diagrams that you have prepared in connection with this particular case and the reconstruction of Carol Kennedy's skull?
 - A Yes, it is.

MR. BUTNER: I would move for the admission of Exhibit 810 at this time.

MR. SEARS: Can I see it one more time?

THE COURT: Yes.

MR. SEARS: No objection.

THE COURT: Exhibit 810 is admitted.

MR. BUTNER:

And just briefly going through these diagrams, let me show you what's admitted into evidence as Exhibit 810. The second page. Is that -- get out of the way -- is that the diagram you prepared in connection with the reconstruction of the right side view of Carol Kennedy's skull?

A It's a copy of the diagram, yes.

Q And does this accurately reflect the damage and fractures that you observed in that process?

A It's a drawing of the fractures, so, yes, it's an accurate depiction. Is it a hundred percent true to the actual damage, I don't know that I could say that. But,

13:38:54	1	yes, it's	a it's a diagrammatic representation of the
13:39:02	2	skull.	
13:39:02	3	Q	Depending upon your skill of drawing?
13:39:05	4	A	Correct, which is pretty lame.
13:39:09	5	Q	What do you prefer as best evidence of the damage
13:39:13	6	to Virginia Carol Kennedy's skull?	
13:39:15	7	A	The first evidence is the skull itself and then
13:39:19	8	the next	best would be the photographs of the skull.
13:39:22	9	Q	And then in the hierarchy, this is
13:39:24	10	A	This is pretty far down.
13:39:27	11	Q	Okay. You don't claim to be an artist?
13:39:31	12	A	No, I do not. I can draw stick people pretty
13:39:34	13	well, but	
13:39:36	14	Q	All right. And the other pictures and I will
13:39:40	15	just put	them on rather quickly, you did those in the same
13:39:46	16	fashion;	is that correct?
13:39:47	17	A	Yes, it is.
13:39:48	18	Q	Here is the left side view; is that right?
13:39:51	19	A	Yes.
13:39:52	20	Q	And then this one is really faint. This is the
13:40:10	21	frontal v	riew; is that correct?
13:40:12	22	A	Yes. And actually there you can see kind of the
		_	totality of it alteresting in one place or engaged
13:40:18	23	total	totality of it altogether in one place as opposed

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face from the cranial vault is what I am trying to say.

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Q Okay. And then this one is labeled a posterior view; is that correct?

A Yes, it is.

Q Do you recognize it?

A Yes, I do. Yes. That's the back of the skull, so the squiggly lines represent the sutures and the red lines represent the fracture. The blue is the chip.

This is the base and cranial view that we were just looking at. It's upside down when we looking at it, but that is what that is. The blue represents the missing bone. The dark color is the outline of the skull with the normal anatomical features and then hopefully in the drawing it's a little more obvious the red are the places where the bone is fractured.

When you were talking about these fractures, you went through a list of potential weapons that you had considered, is that correct, in terms of whether the fractures were consistent with various types of weapons?

A I think that is one of the things that I always think about when I do this.

Q Okay. And I remember you mentioned at one point a crowbar?

A Yes.

Q And were these fractures consistent with the usage of a crowbar?

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A Some of them.

MR. SEARS: Question. Which fractures?

THE COURT: I think the answer was going to actually possibly make that distinction, but I will sustain and ask Mr. Butner to rephrase the question.

MR. BUTNER:

Q Were there -- well, let's start with the fractures on the right side of the head. Were the fractures on the right side of the head in your opinion consistent with a crowbar being used as the instrument that caused the impacts?

- A Are you referring to the curvilinear fracture?
- Q Correct.

A If you looked at the part of the crowbar where the curve is, where it comes up around into the prongs, then you would have to look at the dimension of that curve and also the length of the curve. And then if you go back to the cookie cutter analogy, there is no mass underneath that curve. It's just a bar, right? Am I picturing the right weapon? Let's start with that.

Q I think I understand what you're saying.

A Okay. So essentially you have the cookie cutter. The bar comes up and makes the curve, but there is no mass in here.

So unless it was on its flat end like this

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and you were hitting like this, you might get some of the comminuted fractures that way, but you would lose the curve.

So it would have to be on its side like this, and then you lose the curvilinear part -- I mean the comminuted fractures that are underneath it.

So, in a general sense, you would say no, it's not consistent. Can you rule it out? No, you can't.

Q Were there other potential weapons that you considered besides the crowbar?

A Yes. I tried to think of anything that would have that particular shape. I think the things that I came up with that I liked the best would be river rock and the reason I thought of river rock is because it's smooth. It has no contour to it. It has -- it could have that curved shape to it.

The problem is when you pick up a river rock, then your hands become part of the weapon because you have to hold it. You can't really retract your fingers enough to get enough weight.

So I was trying to picture how you would manage that if you were using a river rock just as an example.

So the weight is good. The heft of the object is good. The curvature would be correct. It's

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the -- it's the managing of the weapon itself, I couldn't make that work.

Q And what other potential weapons -- what about a straight like piece of rebar? Straight rod of rebar?

A I think rebar is too narrow and it probably doesn't have enough weight unless you get a really heavy piece of rebar.

One of the things about this particular set of injuries is that I think that the implement that was used has a certain amount of heft to it, a certain amount of mass to it, to have created this amount of damage.

MR. SEARS: Could I have a point of clarification? Would the witness be asked if she's still talking about that single eight centimeter curvilinear fracture on the right side of the head and no other injuries?

THE COURT: Mr. Butner.

MR. BUTNER: I will try and clear that up.

Q We have just been discussing basically for the most part the right side curvilinear fracture; is that correct?

A Yes.

Q What about going to the left side? What about the fractures on that side? Were you able to kind of take a look at various weapons and determine whether they would

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be appropriate or not?

A Can we just pause for a moment. In the rebar question, the answer would be rebar doesn't fit the curvilinear unless it was bent.

Does that answer your question?

MR. SEARS: Thank you.

THE WITNESS: Okay. On the left side of the skull, the fractures are more linear. They tend to run along the lines of strength in the skull, so rebar is a possibility as long as it was heavy enough to create those injuries.

MR. BUTNER:

Q Was there -- I thought you testified there was -a curvilinear type of fracture on the left side of the skull also though?

A Yes. And rebar would not be consistent with that.

Q Did you come up with any other weapons to consider as a possible instrument that caused this?

A I thought about things like baseball bats, because they're round. I thought about mallets. You know, like particularly, not a metal mallet, but like the rubber kind that have a little give to them. I thought about that.

The thing with those is that I have picked

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them up and they're pretty heavy, so, you know, you would have to take into account the weight of the object itself and I think that the damage here is, while it's extensive, it's not crushing the way you would see if it was an axe or a maul or something like that that was really heavy.

The handle of a hammer sometimes has a rounded edge on it, so literally I was thinking about anything that might have a curve to it, and in most instances, I was either able to say, well, it could be consistent, but I always came up with something that didn't -- that I didn't like about it.

Q You mentioned the handle of a maul. What if the handle were separated from the maul head, so to speak, and the perpetrator of these impacts used only the maul handle?

A That would be a possibility depending on the weight of the handle. If it had, you know, a good weight to it, you could do some of these injuries.

The curved ones especially and linear ones -- I mean any kind of a heavy object could have created those other linear injuries.

Q So referring to the injury to the right side of the skull with the curvilinear aspect to it and then the aspect of the fracture that came straight down from that particular injury, does that equate with the maul handle?

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mean when I picture that, what I am picturing is one that comes up and it's about that big around. If you had one that was eight centimeters across that had a curve that matched that arc, then possibly. You would expect to see maybe some more damage down here underneath, particularly because now instead of talking about two separate things, you're talking about a whole bar and that whole bar theoretically could be impacting the skull simultaneously. You might expect to see more damage.

Q Because you don't have a narrow shaft you mean, but you have rather this broad --

A It's just wider across, so you would expect to see a less of a pattern. I think more damage, less pattern.

Q Having gone through the analysis of various weapons, what did you conclude in your opinion was the most likely instrument that caused these impacts?

A I would --

MR. SEARS: Excuse me. Sorry. I'm now lost. Foundation for that question. Again we are talking about these impacts. I am just not at all clear which injuries we're still talking about.

THE COURT: Mr. Butner, as to the question, are you talking about the curvilinear or -- specify your

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question.

MR. BUTNER: I will back up and try to be more specific, Judge.

MR. SEARS: Thank you, your Honor.

MR. BUTNER:

Q So, first of all, let's just talk about the curvilinear fractures and that's basically what we are talking about at this point in time; is that correct?

A Yes.

Q Okay. There's the right side curvilinear fracture and there's also a left side curvilinear fracture; is that right?

A Yes.

Q In regards to the curvilinear fractures, and having gone through this analysis of potential types of instruments that could have caused those impacts, what did you conclude was the most likely instrument to cause those impacts?

A I don't like to think in terms of most likely to cause. I like to think in terms of cannot be ruled out. So I think it would be easier if you asked me to rule things out.

Q So did you find -- did you find any instruments in your analysis that you could not rule out?

A Any -- any -- well, first of all, a golf club, a

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wood in particular cannot be ruled out. Any implement that has a curvilinear shape to it with maybe a line. It has to have some mass under the curve. Any object that you could describe to me that looks like that. It could even be a homemade implement of some sort.

It has to match that shape is what I am trying to say. So anything like that that you would say what about this? What about this?

The common things, a two by four, baseball bat, rebar, I have mostly ruled all of those out. If you ask me a hundred percent or, you know, 80 percent, I would say no, but for the most part they're ruled out.

Q Thank you, Dr. Fulginiti.

I don't have any further questions at this time.

A You're welcome.

THE COURT: Thank you, Counsel.

MR. SEARS: If we could turn the projector off and take the screen down please before I begin.

THE COURT: Mr. King will help with that. Sure.

MR. SEARS: Thank you, your Honor.

Ready whenever you are.

THE COURT: Okay.

CROSS-EXAMINATION

MR. SEARS: Thank you.

13:53:04	1	Q	Good afternoon, Doctor.
13:53:05	2	A	Good afternoon, Mr. Sears.
13:53:06	3	Q	Nice to see you again.
13:53:08	4		You are here as a scientist; is that right?
13:53:13	5	A	Yes.
13:53:14	6	Q	You are not here because you are an employee of
13:53:17	7	the pros	ecution in this case, correct?
13:53:20	8	A	How do you define employee?
13:53:22	9	Q	I understand you have been paid for your work
13:53:25	10	here.	
13:53:25	11	A	Yes.
13:53:25	12	Q	But if your opinions did not match up with the
13:53:28	13	opinions	of the prosecution, you would not change or shade
13:53:32	14	your opi	nions simply because you were being paid by them,
13:53:34	15	would you	u?
13:53:35	16	A	No.
13:53:35	17	Q	That's not science, is it?
13:53:36	18	A	No.
13:53:37	19	Q	There's a name for that profession.
13:53:38	20	A	Yes, there is. It's not very polite.
13:53:41	21	Q	And you told us in great detail about your
13:53:43	22	training	and your experience. You studied under a very
13:53:46	23	renowned	forensic anthropologist professor at the
13:53:50	24	Universi	ty of Arizona, right?
13:53:50	25	A	Yes, I did.

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- Q His name was?
- A Dr. Walter Birkby.
- **Q** And Dr. Birkby was considered for many years one of the leading, if not the leading forensic anthropologist, certainly in the Western United States, correct?
 - A Yes.
- Q And he was a great proponent of drawing, mapping injuries on skulls, correct?
 - A Yes.
- **Q** And those of you that studied under Dr. Birkby spent many hours drawing on those six view charts, right?
 - A Yes.
- Q But as soon as digital photography became available, my understanding is that you felt that was an equally satisfactory way to document injuries, particularly if drawing is not your strong suit, correct?
- A One of the differences between myself and Dr. Birkby is that he is a phenomenal artist and he could freehand the drawings. So, yes, I rely on photography much more and I also just think it's a more accurate representation and in court, one of the things that he did not face that we face -- I'm sorry -- that he faced that we did not was the nature of the photographs. So we have more leeway than he did in his day.

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Q Right. Now, in this particular case, let's go back, if we could, to the beginning of your work. You said that apparently -- and do you have some chain of custody records with you here today?

A I do.

Q If you need to look at those to answer these questions, please go right ahead and just tell me when you need to do that.

My understanding is that the body of this lady was delivered to what they called the Forensic Science Center, Medical Examiner's Office in downtown Phoenix on July 8 of 2008; is that right?

A Yes.

Q And you had not been alerted in advance that it was going to be delivered that day; is that right?

A I was alerted that the skull was coming down.

Q Not the whole body?

A Not the whole body.

Q In one of your reports, you indicated that a transport service had brought the body down apparently, right?

A Yes.

Q Is that just your assumption because that's the way that human remains are typically transported between outlying counties and the Forensic Science Center?

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- A No.
- Q Do you have some records that show that?
- A I do.
- Q Can I take a look at that.
- A Sure. Do you want the copy or the original?
- Q Either one. Whatever you are --
- A These are the originals, but I do have a copy if you would like to impound them.
- Q And this shows that the trans -- representative was Steve from APT, right?
 - A Yes.
 - Q Okay. The body arrived at that date.

And then the body stayed at the Forensic Science Center for how long before it was sent back to Yavapai County?

A It was roughly -- it came in at 3:00 in the afternoon on the 8th. It was there the 9th, and then it was returned at noon on the 10th.

Q Okay. And then on -- about the 16th of July, the head arrived?

- A Yes.
- Q Is that right?

And had you been alerted in advance the head was going to arrive that day?

A Yes.

13:56:55	1	Q A Sheriff's deputy brought it down in a box?
13:56:57	2	A Yes.
13:56:57	3	Q Did you ever hear that actually Dr. Keen himself
13:57:03	4	drove the body down to the Forensic Science Center, not
13:57:06	5	APT?
13:57:07	6	A No.
13:57:07	7	Q Dr. Keen testified right where you are sitting
13:57:10	8	here and said that because he was going down to Phoenix
13:57:15	9	anyway, he put the body back in the body bag, put it in
13:57:20	10	the back of his pickup truck, bungee corded it down, and
13:57:23	11	drove it down to the Forensic Science Center.
13:57:26	12	Have you ever heard that story?
13:57:27	13	A No.
13:57:29	14	I take that back. I heard about it a couple
13:57:31	15	days ago, but I had never heard of it prior.
13:57:33	16	Q The paperwork you have doesn't coincide with
13:57:35	17	that?
13:57:35	18	A No, it does not and truthfully I think he may be
13:57:38	19	confusing it with a different case.
13:57:39	20	Q Is that right.
13:57:40	21	That's a pretty significant piece of
13:57:43	22	confusion, isn't it?
13:57:44	23	A Yes, it is.
13:57:45	24	Q That is not the way that human remains should be
13:57:47	25	treated in the State of Arizona; is that right?

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A No.

Q You'd never do that in a million years, would you?

A I have done that.

You've driven human remains around?

A Yes.

Q How do you feel about that?

A Not very good.

Q And how about putting human remains in the back of a pickup truck, that are going to be taken down for further scientific examination, what questions does that raise in your mind?

A It would depend on the type of examination that was going to be conducted.

There is the possibility that further damage could be inflicted on the body by that process.

Q And you just never know, correct?

A That's right.

So it's an unprofessional thing to do?

A Yes. Well, having done it, I will tell you that there are some scene locations that are so far remote out in the desert that the only way to transport the body is just exactly how Dr. Keen did it, and I have done that myself.

I think the difference is that it was

13:58:43	1	necessitated by where I was as opposed to driving it down
13:58:49	2	the freeway.
13:58:49	3	Q Because he was going to be there?
13:58:50	4	A Because he happened to be, right.
13:58:52	5	Q Okay. You don't hold a medical license, do you?
13:58:54	6	A No.
13:58:55	7	$oldsymbol{Q}$ You are not held to the standards that a doctor
13:58:57	8	is held to then, correct?
13:58:58	9	A In a different sort of way, I am, but not I
13:59:02	10	guess you're referring to ethical. I mean we are all held
13:59:04	11	to the same standards.
13:59:05	12	Q You are not licensed by the State of Arizona?
13:59:06	13	A No.
13:59:07	14	Q And you're not and were not and have never been a
13:59:12	15	Medical Examiner for any county in Arizona, correct?
13:59:15	16	A That's true.
13:59:16	17	Q You are not qualified to do that?
13:59:17	18	A That's correct.
13:59:17	19	Q And you would think that a Medical Examiner would
13:59:21	20	have to answer to somebody for standards and practices,
13:59:25	21	correct?
13:59:25	22	A Yes.
13:59:26	23	Q Particularly if you're a licensed physician like
13:59:29	24	Dr. Keen?
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A Yes.

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13:59:30	1	Q Okay. Do you think he's just confusing this case
13:59:33	2	with another?
13:59:34	3	A I have a memory that he brought another case to
13:59:36	4	me. It was also a skull or partial skeleton and he
13:59:42	5	brought it down and they stopped him at the guard gate and
13:59:45	6	turned him around. It was not this case, and I have never
13:59:50	7	heard that he brought the body down.
13:59:51	8	Q Is there a signature on that form for anybody
13:59:56	9	working for APT?
13:59:57	10	A Well, there's a signature of Steven somebody,
13:59:59	11	yes.
14:00:00	12	Q So that may be the driver?
14:00:01	13	A Yes.
14:00:02	14	Q So
14:00:02	15	A It's not Dr. Keen's signature.
14:00:04	16	$oldsymbol{Q}$ So Dr. Keen could just be totally wrong on this?
14:00:07	17	A It's a possibility.
14:00:08	18	Q Let's talk about science, though, as it is
14:00:13	19	practiced in the field of forensic anthropology. You told
14:00:16	20	us that a forensic anthropologist has a number of charges
14:00:20	21	I think that was your words, correct?
14:00:22	22	A JUROR: Can you speak up so we can hear you.
14:00:23	23	MR. SEARS: I'm sorry. I'm sorry. I certainly
14:00:25	24	will.
14:00:25	25	THE COURT: Thank you, Mr. Sears.

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MR. SEARS:

Q You said you have a number of charges that you believe you are answerable to in a particular case; is that right?

A Yes.

Q And the charge -- one of the charges in this particular case was to determine what? What were you asked to do in this case?

A Oh, sorry. That was a question. I didn't get that was a question.

The charge in this case was to document the osseus trauma, which is the bony trauma, and to attempt to determine the number of blows or impacts to the cranial vault and if possible to determine whether there was patterned injury and if so, what might have caused the pattern.

Q And who gave you that charge?

A The Sheriff's office.

Q So you work with law enforcement on a regular basis? You have told us that, correct?

A Yes, I do.

Q And there is a vast difference, isn't there, in the work that you do and the work that law enforcement does in the same case?

A Yes.

1 Law enforcement, they're trying to solve a case. 14:01:25 Q 4:01:28 2 They are trying to learn not only what happened, but who 14:01:31 did it, correct? 14:01:32 Α Yes. 5 And they're learning -- they want to learn who 14:01:32 6 did it so they can apprehend that person and prosecute 14:01:35 them for the crime, correct? 7 14:01:37 Yes. 14:01:38 A That's not your charge, is it? 14:01:39 Q 10 Α No. 14:01:41 11 Your charge is to determine what happened, 14:01:41 Q 14:01:45 12 correct? 13 Yes. Well, to determine what injuries are 14:01:45 A 4:01:49 What happened is like a different -- that gives 14 15 a different shade. 14:01:52 I was going to try and expand my question because 14:01:54 16 17 I realized it was incomplete. What happened to the osseus 14:01:56 bone, for example, in this case, right? 14:01:59 18 19 A Yes. 14:02:01 14:02:02 20 Q That's what you do? 21 14:02:04 A Yes. And then Dr. Keen and other medical examiners 22 14:02:04 Q 23 perform another function, correct? 14:02:09 24 14:02:10 A Yes. There's a lot of overlap here. A lot of what law 25 Q 14:02:11

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14:02:14 1 enforcement does is useful to you, correct? 4:02:16 A Yes. Obviously what you do is useful to them, correct? 14:02:16 Q 14:02:18 A Yes. The same thing with the Medical Examiner. 14:02:19 5 work in some sort of concert with medical examiners like 6 14:02:21 7 Dr. Keen on a frequent basis, correct? 14:02:25 14:02:27 Yes. 9 A Medical Examiner has a particular charge by 14:02:27 0 10 law; isn't that right? 14:02:30 11 A Yes. 14:02:30 To determine the cause of death, correct? 14:02:31 12 Q 13 14:02:33 A Yes. That's not what your charge is? 4:02:34 14 Q That's correct. 15 Α 14:02:36 16 That's a medical decision, correct? 14:02:37 14:02:40 17 Yes, it is. In this case our understanding from Dr. Keen is 18 Q 14:02:42 that he wanted a reconstruction of the skull done to 19 14:02:46 14:02:50 20 assist in answering unanswered questions about the nature and extent and possible cause or causes for these terrible 14:02:55 21 22 injuries, correct? 14:02:58 I don't know that Dr. Keen ever wanted that. 23 A 14:02:59 never spoke to him about the case until much later. 24 14:03:02

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asked by law enforcement to do those functions.

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Q Okay. You have told us today that you were aware that Dr. Keen had attempted some sort of at least partial repositioning of skull fragments before you did your work; is that right?

A Yes.

Q That work was of no use to you in the reconstruction you did; isn't that true?

A Of no use sort of implies that I think it was useless. To me it didn't serve any purpose.

Q It was in no way connected to a reconstruction as you performed it, correct?

A That's right.

Q It was an attempt by a non-forensic anthropologist to do a repositioning of some large skull fragments in this case, correct?

A As I understand it, yes.

Q Have you been told in the last few days that apparently Dr. Keen made a mistake in the repositioning of some of these fragments?

A No.

Q If I told you Dr. Keen conceded in that very seat you are sitting in now, that he had misaligned a fragment and had actually rotated it a 180 degrees, would that surprise you?

A No.

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14:04:09	1	Q	It's not what he's trained to do, correct?
14:04:11	2	A	No.
14:04:11	3	Q	On the other hand, the work that you do, that you
14:04:14	4	have tol	d us a couple of times is like reassembling a
14:04:17	5	giant ji	gsaw puzzle is precise when possible, correct?
14:04:20	6	A	When possible, yes.
14:04:21	7	Q	What you are trying to do is to reposition and
14:04:24	8	then glu	e together these fragments to create this three
14:04:27	9	dimensio	nal shape; is that right?
14:04:28	10	A	Yes.
14:04:29	11	Q	So that's science, right?
14:04:30	12	A	Yes.
14:04:31	13	Q	And the science that's applied is an extensive
14:04:34	14	knowledg	e of human anatomy, correct?
14:04:37	15	A	Yes.
14:04:37	16	Q	Anatomical features are sometimes very tiny and
14:04:40	17	deformed	pieces of bone, correct?
14:04:42	18	A	Yes.
14:04:42	19	Q	And it's not just skulls that you work with, you
14:04:44	20	work wit	h all the bones of the body, correct?
14:04:46	21	A	Yes.
14:04:47	22	Q	And skulls have many smaller bones. We have seen
14:04:51	23	sometime	s after traumatic injury, the shattering that we
14:04:54	24	have see	n in this terrible case, correct?
14:04:56	25	A	Yes.

14:04:57	1	Q And let's be real clear here, Doctor. This was a
14:04:59	2	horrific injury to this woman, correct?
14:05:01	3	A Yes.
14:05:02	4	Q And this was a, as you said, a brutalization of
14:05:05	5	this lady?
14:05:06	6	A Yes.
14:05:06	7	Q Correct?
14:05:06	8	And your testimony here today, though, is to
14:05:11	9	simply report to the jury the findings that you made,
14:05:16	10	correct?
14:05:16	11	A Yes.
14:05:16	12	Q Okay. Let's start with and you remember the
14:05:19	13	interview that we had in March of this year over at the
14:05:22	14	County Attorney's office. Do you remember that?
14:05:23	15	A Yes. Barely recovered from it, but yes.
14:05:26	16	Q Do you remember do you remember my colleague
14:05:28	17	Mr. Robertson was with us, right?
14:05:30	18	A Yes.
14:05:30	19	Q And Mr. Butner, of course, was there for the
14:05:32	20	County Attorney office and, in fact, it was in his office,
14:05:34	21	wasn't it?
14:05:34	22	A Yes, it was.
14:05:35	23	\mathbf{Q} And at page 59 have you had a chance to look
14:05:37	24	at the transcript?
14:05:38	25	A I read it last night.

1 Okay. And at page 59 of that transcript, this is 14:05:39 Q 4:05:45 2 what you say at line eight: 14:05:47 I also feel like they have the opinion that 14:05:51 I think a golf club did it and that I'm going to opine that in court, and I can tell you right here today, I have 5 14:05:55 not told you that a golf club did it, nor will I opine 14:05:59 6 that in court. I think we're all hung up on the golf 14:06:03 7 14:06:06 club. 9 Do you remember saying that? 14:06:06 10 Yes, I do. 14:06:07 A 14:06:08 11 And the "they" you were talking about was the Q 14:06:10 12 police, right? I believe you were reading me quotes from 13 A 14:06:11 4:06:13 14 their report at that time. And there were a couple of quotes from 15 14:06:15 Q Right. their reports where they were attributing statements to 14:06:18 16 14:06:22 17 you that caught you off guard, right? Yes. 18 A 14:06:24 At one point you said wow? 19 14:06:25 Q 14:06:26 20 A Yes, I did. 14:06:27 21 Q Do you remember? Said that a couple of times. 22 14:06:27 A And the "wow" was that you were amazed at the way 23 Q 14:06:29 the police were interpreting in their reports what they 24 14:06:34

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claim you told them?

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A I was surprised by the paraphrasing, because it was more, how to say, it was more certain or sure, positive than I had ever stated to them.

Q Well, let me tell you why, and let's see if we can work through this together.

The Indictment in this case, the charging document that has brought us all here to this trial, alleges in part that my client, Steve Democker, killed Carol Kennedy, his former wife, with a golf club.

A The document says that.

Q The document says that. It says golf club. It doesn't say linear object with a curve and mass below. It doesn't say anything other than golf club.

Okay. Trust me on this.

A I do. I don't know if I should, but I do.

Q I think if I was wrong -- I think if I was wrong, you would hear it from Mr. Butner; isn't that right?

A Are you going to object? No. Okay. We're all good. Yes, I believe you.

Q Thank you.

Now, understanding that, that the theory of this case is that Steve Democker killed Carol Kennedy, the lady whose skull you worked with, with a golf club and not with any golf club, but with a particular Callaway Big Bertha Steelhead 3 Number 7 Fairway wood left-handed.

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That's the police theory in this case.

Can you begin to see the interest the police would have in getting you, a scientist, to say that golf club is the murder weapon?

- A Yes.
- Q And as you told me in March and as you said here today, that's not what you're saying?
 - A Correct.
- Q You are not saying that it was even a golf club, correct?
 - A That's correct.
- Q What you are saying is that there are some injuries, and we'll talk in more detail about that, in which a golf club cannot be ruled out, correct?
- A All right. Now I am going to hold your feet to the fire on which injuries you're discussing.
- Q Let's start with the curvilinear fracture, and what does curvilinear mean?
 - A It means that it's a line, but it's curved.
- Q Okay. This line, this curved lined on this picture that the jury has seen here, it's the one on the right side of the head that looks sort of like a sunrise. It's got an arc on the top and then a straight edge across the bottom. It's an arc on the top and a straight edge across the bottom. That's the curvilinear fracture on the

1 14:09:07 14:09:08 2 14:09:08 14:09:11 5 14:09:14 14:09:14 6 7 14:09:14 14:09:18 14:09:22 14:09:25 10 14:09:28 11 14:09:31 12 13 14:09:33 14:09:34 14 15 14:09:37 16 14:09:40 14:09:43 17 14:09:45 18 14:09:47 19 14:09:51 20 14:09:51 21 22 14:09:51 23 14:09:55

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right side, correct?

A Yes.

Q The curvilinear fracture on the left side that you have talked about is less clearly defined; isn't that true?

A Yes.

Q And that it extends depending on which way you do this, from the left orbit just above the left orbit up on to the top of the head, and when it gets up to the top of the head, is where the curvilinear portion is, correct?

A I don't think those two fractures are together.

Q Okay. You don't think the fracture from the left orbit -- do you want to look?

A Yeah, I do. I think the fracture comes down and it curves back on the side of the head. I'm not sure that it has a connecting ray to the one that's over the eye.

Q Okay. Maybe I misunderstood you.

You said that this curvilinear fracture shows some evidence of some scalloping in at least three areas?

A Yes.

Q So it's not the sharply defined curvilinear fracture that you see on the right side of the head?

A Right.

Q Okay. We will talk about that.

14:10:00 1 14:10:02 2 14:10:08 3 14:10:13 14:10:16 5 14:10:16 7 14:10:19 14:10:21 9 14:10:24 10 14:10:26 11 14:10:29 14:10:29 12 14:10:32 13 14:10:35 14 15 14:10:37 16 14:10:39 17 14:10:39 14:10:40 18 19 14:10:41 20 14:10:42 14:10:43 21 14:10:47 22 23 14:10:52

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So let's talk about the golf club. You have said here that a golf club, not just the Callaway with the long name, that a golf club cannot be ruled out as having caused the curvilinear fracture on the right side of the head, right?

A I think I can just stop you right there. I don't think any of the fractures on the skull can be ruled out as being from a golf club, a wood in particular.

Q We are going to talk about some distinctions between the non-curvilinear fractures though.

A Right.

Q Because I think there may be a broader class or category of possible instruments for these linear fractures. That is what you told me.

A If you are talking about multiple implements, then yes.

Q We are going to get there.

A Okay.

Q Okay. Bear with me here.

A All right.

Q Now, when you say that something can't be ruled out, that is in no way saying that it is the one and only instrument that caused that. It just simply can't be ruled out, correct?

A That's correct.

1 14:10:55 4:10:58 2 14:11:01 14:11:06 5 14:11:08 14:11:10 7 14:11:10 14:11:14 14:11:19 10 14:11:23 11 14:11:25 14:11:28 12 14:11:31 13 14 15 14:11:33 14:11:34 16 14:11:35 17 18 14:11:35 19 14:11:37 14:11:39 20 14:11:43 21 14:11:45 22 23 14:11:46

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Q Mr. Butner was talking to you about a number of other objects and put you on the spot and said, okay, here you are August 27, 2010. Give me some other objects, and the one that you mentioned that caught my attention again was the river rock, correct?

A Yes.

Q Okay. Now, I happened to have had a case in which a river rock was part of a murder. Okay. Big 20 pound murderous rock. Okay. And I understand what you are saying is that there are things about a smooth river rock, and I think we all understand what river rock is. It's rock that's been taken from a streambed that's been washed smooth by water, correct?

- A Yes.
- Q As opposed to a jagged piece?
- A Right.
- **Q** Granite?
- A Usually has a very smooth contour.
- Q And people often build fireplaces?
- A Right, or put it in there -- did I step --
- **Q** We have to go one at a time or she will raise her hands again.
- A I though she was saying she had a fireplace made of river rock.
 - Q No. She is saying one at a time. Trust me.

14:11:53 4:11:58 14:11:59 14:12:00 14:12:02 14:12:03 14:12:03 14:12:06 14:12:09 14:12:11 14:12:11 14:12:13 14:12:22 4:12:24 14:12:25 14:12:29 14:12:31 14:12:35 14:12:39

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Okay. Now, a river rock has what you call heft or mass, right?

- A Yes.
- Q It can cause -- and river rocks come in various sizes, correct?
 - A Yes.
- Q Okay. But your concern was how do you get your hands on that and then not have your hands be part of that injury?
 - A Right.
 - Q Right.

Would be one way, right?

- Q If the rock was big enough?
- A Yes.
- Q Another way, using one of your demonstration cups. Let's pretend this is a river rock here, because it's a little less. That's another way, right?
 - A Okay. In theory, yes.

14:12:59	1	$oldsymbol{Q}$ How about a rock that is larger than this and		
4:13:03	2	obviously much heavier, but shaped somewhat like this.		
14:13:05	3	Someone holds one end		
14:13:07	4	A Where it has		
14:13:08	5	Q and hits the other end		
14:13:10	6	A Yes.		
14:13:11	7	Q against the head.		
14:13:12	8	A Yes.		
14:13:13	9	Q Can't rule it out?		
14:13:14	10	A No.		
14:13:14	11	Q We live in Northern Arizona. There are rocks		
14:13:19	12	everywhere, correct?		
14:13:20	13	A Yes.		
4:13:20	14	Q There are river rocks and in lots of places,		
14:13:23	15	correct?		
14:13:23	16	A Yes.		
14:13:23	17	Q You never went to this crime scene, correct?		
14:13:25	18	A No.		
14:13:26	19	$oldsymbol{Q}$ What you said was that you needed something with		
14:13:32	20	some mass and what did you say? Heft?		
14:13:36	21	A Heft. I used the word heft. It just means it		
14:13:39	22	has some weight to it.		
14:13:39	23	Q And I forget what you did this is, oh, I can		
14:13:47	24	tell from that's a Sheriff's sticker. Do we know?		
14:13:51	25	Maybe 2977. May I hand this to the witness,		

14:13:55 1 4:13:56 2 14:13:58 14:13:58 14:14:00 5 6 14:14:04 14:14:08 7 14:14:12 9 14:14:15 10 14:14:18 11 14:14:20 12 14:14:23 14:14:27 13 4:14:31 14 15 14:14:34 16 14:14:35 17 14:14:37 14:14:40 18 19 14:14:40 20 14:14:47 14:14:49 21 14:14:50 22 23 14:14:52 24 14:14:53 25 14:14:55

your Honor?

THE COURT: You may.

MR. SEARS:

- Q That's really light, isn't it?
- A It's light, but the weight of it is in the head and it has the snapping to it which I referred to as like a flexibility in the handle that allows it to increase its ability to generate force, because it's a whipping action.
 - Q It's a golf club. That's how they work, right?
 - A I don't know. Sure.
- Q Okay. So the idea, if you were going to play golf with this, you wouldn't choke it up like this and try and hit it. You try to get your hands down at the end and swing this golf club using the length of the club, right?
 - A Yes.
- **Q** And if it was a graphite flexible shaft, you would get the benefit of that whip in that shaft?
 - A Yes.
- Q So that is how this light hollow head could produce enough force, right?
 - A That's one way, yeah.
 - You are not a biomechanical engineer, right?
 - A I am not.
- Q And you don't know how many foot pounds of pressure, for example, could be generated by a golf club,

14:14:58 1 4:14:59 2 14:14:59 14:15:00 5 14:15:02 6 14:15:04 14:15:07 7 14:15:09 9 14:15:10 10 14:15:12 11 14:15:14 14:15:15 12 13 14:15:15 4:15:18 14 15 14:15:21 14:15:21 16 17 14:15:25 18 14:15:26 19 14:15:30 14:15:35 20 21 14:15:38 22 14:15:39 23 14:15:41 24 14:15:43 25 14:15:45

right?

- A Right.
- Q You don't know necessarily how many foot pounds of pressure it would take to fracture a human skull.
- A I actually do know that. It's in the neighborhood of 400 PSI.
- Q If I told you it was closer to 900 based on current studies, does that sound right?
 - A Yeah. Depends on who is doing the study.
- ${f Q}$ Depends on whose skull and what part of the skull we are talking about.
 - A Correct.
- **Q** But you don't have any training or ability that relates foot pounds to that?
 - A No.
- Q And you're not a crime scene reconstructionist, right?
- A In its specific terms, no. I mean I don't have any training in that, but part of what I do is a creation of the events leading up to the death of the person.
 - Q But you didn't do that in this case, right?
- A Well, I mean everything that we have talked about today, that is what we're doing.
- **Q** But you are not -- you haven't gotten up here and demonstrated how you think this attack took place?

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14:15:57	10
14:15:57	11
14:16:01	12
14:16:02	13
14:16:03	14
14:16:07	15
14:16:11	16
14:16:14	17
14:16:17	18
14:16:20	19
14:16:23	20
14:16:25	21
14:16:27	22
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14:16:33	24
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- A No.
- **Q** And you weren't asked to do that and you don't have an opinion about that?
 - A I don't.
- Q You don't know which way the people were standing, correct?
 - A Right.
- Q You don't know whether people were lying on the ground or sitting up or anything about that, correct?
 - A That is correct.
- Q Okay. You just know that the injury is to the bones of the head, correct?
 - A Yes.
- Q Okay. Now, this is what you said further on at page 59: Well, the injury looks like a golf club, and I believe we were talking about this curvilinear fracture, but it could be other things, too, and I think it's -- and I said it looks like a rising sun. I said it then and I said it again today. You said I think the second half of the sentence has gotten lost with law enforcement.

What sentence were you talking about? Do you remember?

A I think in general terms, I was thinking that the fact that I was trying to say to them I'm not going to testify in court that it is a golf club, but the converse

1 of that is I am not going to say in court that it's not a 14:16:43 4:16:46 2 golf club. 14:16:47 Q It's just one of a class of objects? 14:16:48 A I just thought of another one. May I? Mr. Sears will --5 THE COURT: 14:16:53 6 MR. SEARS: 14:16:54 7 Let me ask a question. Let me ask you a 14:16:55 Q Have you thought of another one? question: 14:16:56 9 I did. A 14:16:56 10 Please answer. 14:17:00 11 A Yes, I did. 14:17:01 14:17:02 12 Q Okay. It had nothing to do with the fact that you're 13 14:17:02 A asking the questions, but the gavel --4:17:04 14 15 14:17:07 Okay. Q -- it has a shaft. It has this shape to it. 16 14:17:08 Theoretically if it were heavy enough and made out of the 14:17:11 17 right material, this would be something else. 18 14:17:14 19 You were talking about a rubber mallet? 14:17:16 14:17:18 20 A Yes. 14:17:18 21 Q Okay. 22 Sorry, your Honor. 14:17:20 A You were talking about a rubber mallet, which is 23 Q 14:17:21 basically shaped just like this except it's got a -- it's 24 14:17:23

designed -- this is a decorative gavel for courtroom

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14:17:31 1 appearances. A rubber mallet is designed as a tool, 1:17:33 2 right? 14:17:33 A Right. 14:17:34 Q And it has a large hard rubber head, correct? Yes. 14:17:36 5 A And has a thicker shaft on it typically, right? 6 14:17:37 14:17:39 7 Α Yes. And it's designed to pound things? 14:17:40 Q 9 Yes. 14:17:41 A 14:17:42 10 Right? Q 11 Pound in things where you don't want to 14:17:42 leave a dent, but you can really pound things like that. 14:17:44 12 And are you saying that if that were struck 13 14:17:47 sideways on the head like this, is that the aspect of it? 4:17:50 14 If it's curved, but you just said you don't want 15 14:17:54 to make a dent. The skull has many dents. 14:17:56 16 17 Well, I said when it's used properly. 14:17:59 Q Oh. 18 A 19 It's not used to kill a human being. 14:18:02 Q If it had a curved profile, then, yeah. 14:18:03 20 A The end of it has a curve to it, right? 14:18:07 21 Q 22 14:18:10 A Right. But it's more like a ball-peen hammer? 23 14:18:11 Q It's a little bit circumscribed for me. Narrow. 14:18:12 24 A

When you say circumscribed --

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14:18:17	1	A	I mean	
4:18:18	2	Q	it becomes a circle.	
14:18:18	3	A	And it's small.	
14:18:20	4	Q	Okay. But you can't rule it out?	
14:18:22	5	A	No. Well, if you had one of the right dimension	
14:18:26	6	that didn't weigh too much, you can't rule it out.		
14:18:29	7	Q	Well, let's go back and talk about the science of	
14:18:34	8	fracture	s on the human skull. That's a particular	
14:18:37	9	subspecialty within the field of forensic anthropology,		
14:18:41	10	correct?		
14:18:41	11	A	Yeah.	
14:18:43	12	Q	For example, are you familiar with the work of	
		1		
14:18:45	13	Dr. Ann	Kromen?	
14:18:45	13 14	Dr. Ann	<pre>Kromen? Yes.</pre>	
			•	
4:18:47	14 15	A Q	Yes.	
14:18:47	14 15	A Q	Yes. And you know she has done specific studies of the	
14:18:47 14:18:48 14:18:52	14 15 16	A Q fracturi	Yes. And you know she has done specific studies of the ng of the human skull, correct?	
14:18:47 14:18:48 14:18:52 14:18:54	14 15 16 17	A Q fracturi A	Yes. And you know she has done specific studies of the ng of the human skull, correct? Yes.	
14:18:47 14:18:48 14:18:52 14:18:54 14:18:54	14 15 16 17 18	A Q fracturi A Q	Yes. And you know she has done specific studies of the ng of the human skull, correct? Yes. Using human skulls?	
14:18:47 14:18:48 14:18:52 14:18:54 14:18:54 14:18:55	14 15 16 17 18	A Q fracturi A Q A	Yes. And you know she has done specific studies of the ng of the human skull, correct? Yes. Using human skulls? Yes.	
14:18:47 14:18:48 14:18:52 14:18:54 14:18:54 14:18:55 14:18:55	14 15 16 17 18 19	A Q fracturi A Q A	Yes. And you know she has done specific studies of the ng of the human skull, correct? Yes. Using human skulls? Yes. Not a Styrofoam cooler?	
14:18:47 14:18:48 14:18:52 14:18:54 14:18:54 14:18:55 14:18:55	14 15 16 17 18 19 20 21	A Q fracturi A Q A Q A	Yes. And you know she has done specific studies of the ng of the human skull, correct? Yes. Using human skulls? Yes. Not a Styrofoam cooler? Yes.	
14:18:47 14:18:48 14:18:52 14:18:54 14:18:54 14:18:55 14:18:55 14:18:55	14 15 16 17 18 19 20 21 22	A Q fracturi A Q A Q A Q said in	Yes. And you know she has done specific studies of the ng of the human skull, correct? Yes. Using human skulls? Yes. Not a Styrofoam cooler? Yes. You're not suggesting that your I think you	

experiment, correct?

14:19:08 25

14:19:09	1	A	No.	
14:19:09	2	Q	You wouldn't submit that to the American Academy	
14:19:13	3	of Forens	sic Sciences and go to their meeting and present	
14:19:14	4	that worl	k, correct?	
14:19:15	5	A	No.	
14:19:15	6	Q	And you wouldn't go to the American Academy of	
14:19:18	7	Forensic	Science with a crumpled up plastic cup, right?	
14:19:21	8	A	Not unless it supported whatever I was trying to	
14:19:24	9	prove.		
14:19:24	10	Q	Okay. But you have done scholarly work, for	
14:19:26	11	example,	in the corrosive effects of certain substances on	
14:19:29	12	human bones, right?		
14:19:30	13	A	Yes.	
14:19:31	14	Q	And that was real science when you did that,	
14:19:33	15	right?		
14:19:34	16	A	Yes.	
14:19:34	17	Q	You followed all the scientific methods and	
14:19:36	18	principle	es in that testing, right?	
14:19:38	19	A	Yes.	
14:19:39	20	Q	And whacking the crap out of a Styrofoam cooler	
14:19:42	21	is not so	cientific principle, correct?	
14:19:46	22	A	Right.	
14:19:46	23	Q	You were just trying to see what it looked like,	
14:19:48	24	right?		
14:19:48	25	A	Right.	

14:19:50 1 Q And tracing the end of a golf club to get an idea 4:19:55 2 of the representation, that wasn't a scientific 14:19:57 experiment, was it? 14:19:58 Α No. 14:19:58 Q And so the drawings that we have seen here were just your effort to see what the different surfaces of not 14:20:03 just -- any golf club, but actually this very golf club 7 14:20:07 here? This is the one they brought to you? 14:20:11 Α I believe that's right. 14:20:12 9 And so you were just trying to draw what 10 14:20:13 Q 11 this is -- this is what you called the hitting surface, 14:20:16 14:20:19 12 right? 13 14:20:19 Α Yes. 14:20:19 And then you were looking at the back of the 14 Q 15 club? 14:20:21 16 A Yes. 14:20:21 17 14:20:22 Q Right? That's this area right here, correct? 14:20:22 18 19 A Yes. 14:20:23 20 And then there was a time when you put it down on 14:20:24 Q 14:20:26 21 the ground and traced it that way, right? Yes. 14:20:27 22 A You were trying to see what those areas looked 23 14:20:28 Q 24 like, right? 14:20:30 25 A Right. 14:20:30

14:20:31 1 Q To see if they looked something like this injury 4:20:33 2 you saw on the head, right? 14:20:34 Yes. And this is the phenomenon that you are talking 14:20:35 Q about, of how the cup, when you are holding the club, just 5 14:20:37 kind of changes depending on how you're handling it. 14:20:39 can grip it so it doesn't move, right? 14:20:43 7 14:20:44 Yes. But if you are holding it more loosely in your 9 14:20:45 Q 10 hands, it tends to flip from side to side, right? 14:20:46 11 If you are not using it to hit a golf club -- a 14:20:49 A 12 14:20:52 ball, it moves in your hand. Now, would you agree with me that it is possible 13 14:20:54 Q for a linear object -- and what's a linear object compared 14:21:01 14 15 to a curvilinear object? 14:21:05 A crowbar, a bat, a pipe, anything that 14:21:07 16 doesn't -- a crowbar has a curve in it inherent in the 17 14:21:14 Now, there are some that are not like a cat's paw. 18 14:21:18 19 Just is flat. But most crowbars have, and that gives it 14:21:21 14:21:25 20 an extra torque, so that --Piece of rebar? 14:21:26 21 Q 22 14:21:27 A Yes. 23 Just a straight --Q 14:21:27 24 Rebar is curved. It has a curved shape, but A 14:21:28

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it's -- its axis is long. It's linear.

14:21:35	1	Q A wooden dowel?		
4:21:36	2	A A wooden dowel, the same thing.		
14:21:37	3	Q Is a linear object?		
14:21:38	4	A Yes.		
14:21:38	5	${f Q}$ It is possible, and you know this, for a linear		
14:21:44	6	object to cause a curved fracture on a human skull?		
14:21:47	7	A Yes.		
14:21:47	8	$oldsymbol{Q}$ Okay. And part of the reason for that you told		
14:21:50	9	me, and others have told me, including Dr. Kromen, is that		
14:21:55	10	the human skull itself is curved?		
14:21:56	11	A Yes.		
14:21:57	12	${f Q}$ Okay. And so when you strike a curved object		
14:22:00	13	with a straight object, it can produce a curved fracture,		
14:22:04	14	correct?		
14:22:04	15	A Yes.		
14:22:04	16	Q Now, you have never done any scientific		
14:22:06	17	experiments using human skulls to determine how factures		
14:22:11	18	occur, have you?		
14:22:12	19	A No.		
14:22:13	20	Q But you know that that has been done?		
14:22:15	21	A Yes.		
14:22:16	22	${f Q}$ Okay. And it's difficult to do because you're		
14:22:19	23	using trying to use human skulls and crush human		
	24	skulls.		
	25	A Yes.		

14:22:22	1	Q	There is not an inexhaustible supply of human
4:22:24	2	skulls?	
14:22:24	3	A	Well, there is, but it's called murder, so we
14:22:27	4	don't do	it.
14:22:27	5	Q	For scientists to work with?
14:22:29	6	A	Yes.
14:22:29	7	Q	Who want to present their papers to the American
14:22:31	8	Academy o	of Forensic Science like Dr. Kromen?
14:22:34	9	A	Yes.
14:22:34	10	Q	And experiments have been done with animal
14:22:37	11	skulls?	
14:22:37	12	A	Yes.
14:22:37	13	Q	Particularly pig skulls, but those have been
4:22:39	14	unsatisfactory, correct?	
14:22:40	15	A	To me, they are. The pig skull is about four
14:22:42	16	times as	thick as a human skull, so
14:22:45	17	Q	And then objects you and I talked about
14:22:47	18	watermelons?	
14:22:48	19	A	Yes.
14:22:48	20	Q	Right?
14:22:49	21		A watermelon, other than its shape, bears
14:22:52	22	very lit	tle resemblance otherwise to a human skull,
14:22:55	23	correct?	
14:22:56	24	A	Right.
14:22:56	25	Q	So hitting a watermelon with an object isn't

1 14:22:57 4:23:01 2 14:23:01 14:23:07 14:23:09 14:23:12 14:23:16 7 14:23:18 14:23:18 10 14:23:20 14:23:21 11 14:23:21 12 14:23:24 13 4:23:27 14 15 14:23:30 14:23:30 16 17 14:23:33 14:23:36 18 19 14:23:37 14:23:39 20 14:23:42 21 22 14:23:43 23 14:23:46 14:23:50 24

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going to give you much scientific information, correct?

- A Right.
- And you would -- if I understand what you are saying, is that your first impression when you saw that was golf club and then you kind of refined that, and you're still at the point now where that's an object that you can't rule out as causing that, right?
 - A Right.
- Q And when I say "that," I mean the fracture on the right side?
 - A Right.
- And you're a little less certain, if I understand what you are saying, about the curvilinear fracture on the left side towards the top also being caused by a golf club?
- A I think I just said a few minutes ago that all of the fractures on the skull could have been caused by the golf club.
- **Q** But this is where I think maybe we can draw some distinctions, because I think you have drawn some distinctions.

The fractures on the left side that we saw, the comminuted fractures that caused all that horrible damage, many of those fractures have no curvilinear aspect to them at all, correct?

14:24:04 5 14:24:05 6 14:24:06 7 14:24:10 14:24:11 14:24:16 10 14:24:18 14:24:19 11 12 14:24:23 13 14:24:26 4:24:26 14 15 14:24:26 14:24:28 16 17 14:24:31 14:24:32 18 19 14:24:34 14:24:38 20 14:24:40 21 14:24:42 22 23 14:24:46 24 14:24:50 14:24:53 25

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- A Yes.
- Q That would open up then, I would assume, the range of possible objects to objects that themselves are not curved, correct?
 - A Yes.
- Q Okay. Now, I think we started to talk about this and I said we would get back to it.

You cannot rule out multiple objects as causing the fractures on this woman's head, can you?

- A No.
- Q So there could have been something with a curve, maybe even a golf club, causing some of the fractures, correct?
 - A Yes.
- **Q** But there may have been other objects, more than one perhaps, causing the other injuries you saw, correct?
 - A Yes.
- Q And that would then raise the possibility, I suppose, of multiple assailants, correct?
 - A I wouldn't even hazard a guess.
- Q Well, you would have a couple of possibilities. I think some of this might be easily observable by you. You could have one assailant with a range of objects, putting them down, picking them up, and using different objects to cause injuries, correct?

14:24:55 1 A Yes. 4:24:56 2 Or you could have two or three or four people, 14:24:59 3 each with a different object in their hand, attacking this 14:25:02 woman in some sequence, correct? 5 A 14:25:04 Yes. So --6 14:25:05 MR. BUTNER: Objection, Judge. We are moving 14:25:07 7 into an area where I think the witness has -- does not 14:25:09 have foundation, and that was already established. 9 14:25:12 10 THE COURT: Overruled. You may -- the question 14:25:16 11 was answered. 14:25:19 14:25:19 12 Go ahead, Mr. Sears. 14:25:20 13 THE WITNESS: Sorry. 14:25:21 MR. SEARS: 14 There is no question. 15 14:25:22 14:25:23 I said sorry because I answered the question 16 17 before he could object. 14:25:25 But that is still your answer? 14:25:27 18 Q 19 Yes. 14:25:29 A 14:25:29 20 Q Now, and that's a good rule to follow. Mr. Butner has an objection, please stop and wait for the 14:25:35 21 judge to rule on the objection and that way we don't have 14:25:38 22 to be concerned about the answer that came. 23 14:25:42 Is that fair? 24 14:25:44

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14:25:44

A

Yes.

14:25:45	1	Q	Now, so you can't rule out multiple objects,
4:25:50	2	correct?	
14:25:51	3	A	Yes.
14:25:52	4	Q	And you can't rule out yes, that's correct?
14:25:58	5	A	I cannot rule out multiple objects.
14:26:00	6	Q	Thank you.
14:26:01	7		And you can't rule out multiple assailants,
14:26:04	8	correct?	
14:26:04	9		MR. BUTNER: Objection. Foundation.
14:26:08	10		THE COURT: Overruled.
14:26:10	11		MR. SEARS:
14:26:11	12	Q	If you can?
14:26:11	13	A	I cannot rule out multiple assailants.
14:26:14	14	Q	Now, you used the word impact very carefully in
14:26:19	15	your tes	timony today and I know that because you and I
14:26:22	16	spent considerable time back in March talking about	
14:26:25	17	impact.	
14:26:26	18		When you say here today to the jury that you
14:26:29	19	see impa	cts, that doesn't mean that each place you say
14:26:33	20	there's	an impact was a place where someone struck Carol
14:26:37	21	Kennedy	with an object? That's not what you're saying,
14:26:40	22	correct?	
14:26:40	23	A	That's right.
14:26:41	24	Q	What's your definition of an impact then?
		I .	

14:26:43 25

An impact is anything that -- that touches the

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14:28:02

skull. So it could be an object hitting the skull. It could be the skull hitting an object, a wall, a floor, ad nauseam.

Q And, in fact, you told me back in March that you saw a minimum of one, possibly two impacts with an object, correct? Where an object was used as a weapon?

- A That's probably true, yes.
- Q And those would be the one curvilinear fracture on the right side you believe is caused by a weapon strike or an object strike --
 - A An object.
- Q An object if it's used that way presumably as a weapon?
 - A Yes.
- ${f Q}$ And perhaps the curvilinear fracture on the other side towards the top, correct?
 - A Yes.
- Q And every other fracture that you saw, you could not associate with Carol having been struck by some object that was being wielded by a person or persons, right?
- A I think we talked about focal points and the chipping that you see in some of those areas of convergence is -- the change is caused by the skull striking something or being struck by something, but it has to have some kind of a focal point to create the chip.

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And if you -- if you hit it on the flat surfaces like a table or the floor or the wall, you are not necessarily going to see that chipping action.

- Q Right.
- A And -- and I think we talked about that.
- Q I understand, and there's another phenomenon and we talked about that, and I don't think you covered it with Mr. Butner, and that's this: That for a number of reasons, that if the human head is against an object, for example, if it were resting on that bench in front of you on one side, and it were struck with a lot of force on the other side, that striking on the other side could produce a corresponding fracture on the side that is against the bench, correct?
 - A Yes.
 - Q How does that work?
- A It has to do with the biomechanics. Again, we are talking about resistance, so when the head is down on something and it's impacted, there is nowhere for it to go to escape the force that's being applied to it. So it breaks in response to that.
- And the fracture on the other side then may have a particular shape to it, correct? The fracture -- when I said the other side, the side that is against some object, against a desk or a table or the floor, correct?

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- A Are we talking about in this case or in general?
- Q In general.
- A In general, if the skull is up against something that has a shape, it might mimic the shape that it's up against. If it's up against a flat surface, you would be more likely to see the splits like you would see in a watermelon when you drop it on the ground.
- Q Were you at the American Academy of Forensic Science's meeting about seven years ago when Dr. Kromen presented her experiments with the human skull being laid up against a board and force being applied to other side? Do you remember that?
- A I don't remember the paper, but I read her dissertation, so -- yeah.
- Q And that's the work that she has done, and were you aware that when, in her experiments using human skulls, that when she struck what I will call the upside, the side that is not against the object -- in this case it was a board -- with a linear object, it looked like a piece of cylindrical rod, that it produced fractures on the side where it struck?

You would expect that, right?

- A Yes.
- Q But a fracture -- a corresponding identical fracture on the side that was against a flat board?

14:30:21	1	A	Yes. Now, that is not the object that I saw
14:30:24	2	was a la	rge bore, like this big around, metal tube and it
14:30:29	3	had sort	of a shallow curve to the bottom of it. That's
14:30:33	4	different	t from what you're describing.
14:30:34	5	Q	Uh-huh. Yeah. That's the one. She had a Power
14:30:36	6	Point.	
14:30:36	7	A	It's big.
14:30:37	8	Q	She had a Power Point. Sure.
14:30:38	9	A	It's big. It's not linear.
14:30:39	10	Q	Sure. But it had a linear aspect to it?
14:30:41	11	A	No, it doesn't. It's big. It's big and round
14:30:44	12	like this	s and it has a very shallow thing on it.
14:30:46	13	Q	We are going to see that from Dr. Kromen later
14:30:49	14	on.	
14:30:49	15	A	Okay. I don't think it's linear.
14:30:50	16	Q	Do you remember that paper?
14:30:51	17	A	Well, I remember I looked at her dissertation.
14:30:54	18	Q	Do you remember what the fracture looked like on
14:30:56	19	the side	that was not struck by that object?
14:30:59	20	A	That it mimicked.
14:31:00	21	Q	It was a curved fracture?
14:31:02	22	A	Yeah.
14:31:02	23	Q	Yeah. It was a curved fracture and it wasn't
14:31:05	24	struck by	y anything?

14:31:05 25

A Yeah.

14:31:06	1	Q	So that's an example of getting a curved fracture
14:31:09	2	on the s	kull is that called transfer?
14:31:12	3	A	Yes.
14:31:12	4	Q	For reference, is it a transferred fracture?
14:31:15	5	A	It's a that's yes, that's one way to
14:31:17	6	describe	it.
14:31:18	7	Q	So that's an interesting phenomenon?
14:31:21	8	A	Yes, it is.
14:31:22	9	Q	Curved fracture on the skull that wasn't struck
14:31:26	10	by a cur	ved object, correct?
14:31:28	11	A	If you say so.
14:31:30	12	Q	Do you remember seeing that?
14:31:30	13	A	I didn't see the paper, so I can't comment.
14:31:33	14	Q	I'm sorry. I thought you said you did?
14:31:36	15	A	I looked at the photos in her dissertation.
14:31:38	16	Q	Did you see photos of that curved fracture?
14:31:41	17	A	I don't remember seeing a a curved fracture
14:31:44	18	that loo	ked like what you are describing.
14:31:46	19	Q	The other reason that you told me that or
14:31:54	20	actually	you told Mr. Robertson that how curvilinear
14:31:59	21	fracture	s can be caused by non-curved objects in addition
14:32:04	22	is becau	se the skull was curved.
14:32:05	23		That was one factor, right?
		_	

A Right.

Q

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You also said it's because the skull has varying

thicknesses and the fracture is going to run along the 14:32:09 1 14:32:12 2 line of least resistance. That is at page 48 of your 14:32:15 3 transcript. 14:32:16 What does that mean? It means that in the skull, there are various A 5 14:32:16 parts of the skull that are either thicker or thinner and 14:32:19 so they react differently to trauma, and just like in a 14:32:21 7 piece of wood, the fracture line is going to run along the 14:32:26 area of least resistance or the weakest part, so in the 14:32:29 14:32:34 10 skull you might see that also. Okay. In this particular case, you were doing 14:32:35 11 your work between the 16th and 28th of July of 2008, 12 14:32:39 13 correct? 14:32:43 14:32:43 14 A Yes. And on the 28th of July, Rhodes here and a couple 15 14:32:43 of the other officers came down to the Forensic Science 14:32:47 16 17 Center with this golf club, didn't they? 14:32:50 Yes. 18 A 14:32:52 And they wanted you to look at this golf club, 19 14:32:53 Q 14:32:55 20 right? 14:32:55 21 A Yes. They wanted you to take photographs of the golf 22 14:32:55 Q club against the skull as you reconstructed? 23 14:32:58 It was actually my idea. 24 14:33:00 A

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And actually you said that at the end that was

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not a good idea, right?

A Right.

Q Why?

A Because when you take a photograph of a particular object and you put it with a particular injury, it's too easy to make the link between the two when, in fact, that's not what I was going to testify to. It makes it too real. Let me put it that way.

Q Did you ever see the pictures that were taken when Dr. Keen took the body out on -- we think the 15th of July, there's some evidence it's on the 14th of July -- up here at the morgue and had that club laid against various injuries on the body.

Did you ever see those pictures?

A Yes.

Q Would that be an example of exactly what you are talking about, that it's too easy to use that club with those injuries to compel the observer to say that must be the weapon?

A I wouldn't say that it compels it, but it draws a -- it draws a link between the two. If -- you could also argue that it's helpful to rule out a weapon.

Q Okay. But those pictures weren't designed to rule out a weapon, were they?

A I don't know what their purpose was.

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- **Q** They were designed to make it appear at least that club caused those injuries?
 - A Or it could have caused those injuries.
- Q Now, in your report and when you talked to the police, you recommended that they test other objects because they came in talking about this golf club, right?
 - A Yes.
- **Q** And have you heard -- you have heard enough of us to understand why they became fixated early on about that golf club or a golf club identical to that. Do you understand that story?
- A I don't like the term fixated. I don't think that's --
 - Q Obsessed?
 - A You're characterizing their opinion.
- Q They had a strong opinion within the first couple of weeks of this case that they knew what the murder weapon was, right?
 - A I don't know that.
 - They brought you one object, right?
 - A They brought me an object.
 - And they brought you that golf club, right?
 - A Yes.
- Q And you knew then that Dr. Keen had been brought that golf club, right?

14:35:05	1	A	I did not know that, no.
14:35:07	2	Q	You know now the Indictment says golf club,
14:35:10	3	right?	
14:35:10	4	A	Yes.
14:35:10	5	Q	The Indictment doesn't say some object. It says
14:35:13	6	golf clu	b, correct?
14:35:14	7	A	Yes.
14:35:14	8	Q	Do you see the narrowing of interest beginning
14:35:17	9	within t	he first few weeks of this investigation to a golf
14:35:21	10	club as	the weapon?
14:35:22	11	A	I am just not sure how it's relevant to what we
14:35:25	12	are talk	ing about.
14:35:25	13	Q	Well, it's relevant because you went another
14:35:28	14	directio	n with them and you recommended that they test
14:35:31	15	other ob	jects, correct?
14:35:33	16	A	Yes.
14:35:34	17	Q	What objects were you thinking of?
14:35:36	18	A	Any object that has a curvilinear shape with a
14:35:40	19	linear s	hape that are in direct concordance with one
14:35:45	20	another	that might match the imprint that we see on the
14:35:48	21	skull.	
14:35:48	22	Q	And you say it could have been a homemade object,
14:35:49	23	right?	
14:35:50	24	A	Yes.

 ${f Q}$ You told us a very interesting story back in

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March about a case you had that had some really curious pattern injuries, right?

- A Yes.
- Q Didn't seem to match up to some common objects, right?
 - A Yes.
- Q Okay. Tell -- would you tell the jury that story?

A Sure. We had a case where a man came in who had a very circular defect on the side of his head and it wasn't punched out. You didn't see the comminuted fractures like you see in Mrs. Kennedy's case, and at the time I told the Medical Examiner that I thought it was an object that had some sort of penetrating force followed by some sort of blunt force, because the hole was clean like a qunshot wound, but it was too big to be a gunshot wound.

Search, they found a homemade piece of wood that was about maybe this long that had a metal nipple on the end of it that came down to a point. So it was a point followed by a wooden dowel, but a big dowel. And it was used as kind of a like a trash picking type tool, and when I saw it, I said, ah ha, that is exactly what I am talking about.

- Q And did that turn out to be murder weapon?
- A I don't know. I wish I could say yes, but I

1 don't know. 14:36:58 14:36:58 But that is what you thought, right? I thought it was something that had both of those 14:36:59 Α 14:37:02 components. So the mere fact that it's difficult to think of 5 Q 14:37:03 a homemade object -- sorry -- of store bought objects that 14:37:05 6 7 fit your description, doesn't mean that there aren't 14:37:09 homemade objects like your case that could have been 14:37:13 applied, right? 14:37:16 10 A That's right. 14:37:16 11 Q And they don't have to be built to be a murder 14:37:17 14:37:18 12 weapon, right? 13 A **1**4:37:19 Right. 14:37:19 It could have been an object that was around the 14 15 house for some other purpose that somebody used to kill 14:37:22 16 this poor lady? 14:37:25 17 Yes. 14:37:26 Correct? 14:37:27 18 Q 19 Or a rock, correct? 14:37:28 14:37:29 20 A Yes. 21 River rock we talked about. 14:37:29 Q This would be a good point for a break, your 22 14:37:30 23 Honor. 14:37:32 24 THE COURT: 14:37:32 Okay.

Thank you.

MR. SEARS:

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14:37:33

1 THE COURT: We will take the afternoon recess, 14:37:34 14:37:35 2 Ladies and Gentlemen. Again please remember the 14:37:37 3 admonition. 14:37:38 Please be reassembled in the jury room at 3:00, about 20 minutes, and I am going to ask the parties 14:37:43 5 to remain, but, Dr. Fulginiti, you are excused at this 14:37:46 time for the recess. 14:37:50 7 THE WITNESS: Thank you. 14:37:51 (Whereupon, the jury left the courtroom.) 14:37:53 Thank you. Be seated. 10 THE COURT: 14:38:28 (Short recess, after which the following proceedings 11 14:40:04 12 were held in the Court's chambers, to wit:) THE COURT: Okay. We're in chambers with 13 14:40:04 Mr. Butner, Mr. Paupore present, and then all of the 14:40:09 14 15 defense attorneys as well. 14:40:13 Mr. Sears. 14:40:14 16 17 MR. SEARS: Your Honor, we waive our client's 14:40:14 presence, of course. 14:40:16 18 I think the first thing that Mr. Butner 19 14:40:17 14:40:20 20 wanted to talk about was the fact that for a number of these witnesses, including this one, each side has their 21 14:40:24 own transcript and they don't match up in terms of pages. 14:40:27 22 MR. BUTNER: I would like to talk about that, 23 14:40:32 24 Mr. Sears. 14:40:34

MR. SEARS: I was just going --

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14:40:35 1 4:40:37 2 14:40:39 3 my sentence. 14:40:39 14:40:41 5 your Honor. 14:40:42 14:40:43 7 14:40:45 9 14:40:47 10 number? 14:40:49 11 14:40:50 14:40:51 12 13 14:40:53 4:40:58 14 15 14:41:05 16 14:41:08 17 14:41:10 18 14:41:17 19 14:41:22 14:41:23 20 14:41:24 21 22 land. 14:41:28 23 14:41:28 24 14:41:35

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MR. BUTNER: I can talk about that.

MR. SEARS: If you'd give me a chance to finish

I think Mr. Butner had an issue about that,

MR. BUTNER: That isn't the first thing I would like to talk about. I thought we were here to talk about Mr. Wagnon's juror issue.

THE COURT: Sorry. Number 13 -- is that the

MR. BUTNER: I believe so. I am not --

THE COURT: I should have brought my chart in.

Okay. I mentioned that briefly to Joe and Larry before the lunch. I thought we might just talk to him and tell him -- you know, make sure he knows that we have seen this. We are going to -- it doesn't seem to be an issue today, but we'll go ahead and leave the blinds low and let us know if there's any kind of problems.

Mr. Hammond.

MR. HAMMOND: Do you mind if I stand up for a moment. I get down there and I think I am in never, never

The point of concern that I expressed earlier -- we had been told by the, I think it was actually your bailiff who is sitting in for Phil, Heidi is

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her name, that some jurors -- and I have no idea what "some" meant -- had asked that we keep the window behind the defense table open and someone used the words claustrophobic and said we feel less claustrophobic or words to that effect, and we said fine. If somebody wants it open, it's fine. It does actually put a glare on the computer screens on this side, but we said no problem at all.

And so when I saw the note this morning from Mr. Wagnon, one concern I had was that by accommodating his request unbeknownst to us, we may be offending other jurors, but at the same time, I didn't want us not to respond to Mr. Wagnon. I mean his letter actually to me was a little chilling when he ended it by saying if this presents a problem for the Court, I understand and respectfully request to be relieved from further jury duty in this case.

I don't think any of us want to lose a juror or have a juror think that something so important has happened that he has to say if you can't accommodate me, fine. If not, I'm out of here. It may just be the way he wrote the letter and he may not have intended it the way I read it.

But I would like us to be able to tell him that we're sensitive to his concern and will understand

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it, but I think we may also need to tell the other jurors that we're attentive, as a group, we're attentive to all of them and that if they have concerns about lighting or about -- or about really anything in that courtroom, we ought to know about it.

Just so we don't have an unintended consequence by suddenly closing them. It seems silly when I say it, but I think you can see the awkwardness of this.

THE COURT: I thought you were going to say,
because the note came to me in a sealed envelope, that
there is already a division out there among the people who
feel closed in if they don't --

MR. SEARS: I was hoping the jury wouldn't divide along those lines.

THE COURT: I just wondered if that --

MR. SEARS: As suggested by Mr. Hammond.

MR. HAMMOND: -- actually wasn't -- I didn't see it that way. But I guess that's a possibility which makes me even more nervous.

THE COURT: Joe.

MR. BUTNER: I don't think they're dividing along those lines either, but I do see that -- the concern. I was concerned about losing Mr. Wagnon too, and of course I think we should try and accommodate him.

I hadn't heard until this afternoon about

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other jurors being claustrophobic as apparently reported by bailiff Heidi, but I would think somehow we can probably accommodate both sides of that situation, because seems to me that the light that is bothering Mr. Wagnon is the one that is basically straight across from the jury box coming out of that window.

And there's this other window down at the end there that can be left open to accommodate the claustrophobic jurors, if there are such jurors. That is what Phil had done. Phil thought that was a compromise.

You know, you could say that -- you could say that unfortunately on really sunny days, at certain times the sun comes in the window plus a glare on the clerk's computer and our computers on this side or something like that.

THE COURT: Okay. I thought we might bring

Mr. Wagnon or juror 13 in and just tell him what we are

doing and that I can just say in general at the end of the

day that -- I mean I am aware from having been in

courtroom a number of times in years past, that is a bad

glare. I have noticed that, and that it's disruptive for

some people and we're conscious of that. Just trying to

take care of --

MR. SEARS: Maybe you could ask him if he thought he would be bothered if that window -- that goes into the

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gallery, be the far left blinds were open on that, would that be a problem for him?

THE COURT: Okay. I suggest -- go ahead.

MR. BUTNER: I'm sorry. And then also we can consider the possibility of letting Mr. Wagnon move. He's right in the dead center of the jury and if he were at an angle, probably wouldn't be a problem for him. I'm guessing, of course, but I think that might be the case.

THE COURT: On the real sunny days, it is not comfortable for anybody looking towards that window though from what I'm recalling.

MR. HAMMOND: He may also have a peripheral vision problem, but because he's sighted in only one eye, so maybe he's where he is advisedly.

THE COURT: So I guess we talk to him maybe in a couple of minutes and then I will say something at the end of the day just in generally about we're going to try and keep the lighting situation so that it's convenient for everyone the best we can.

Okay.

MS. CHAPMAN: Phil mentioned it was an issue and we could move things around, so he knows that, too. When he comes in, you can reaffirm that for him.

THE COURT: Okay. Part two.

MR. BUTNER: Part two is Mr. Sears is referring

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to a transcript in cross-examination of Dr. Fulginiti and I have a transcript, but apparently my transcript isn't in the same order of pages and lines and so forth as Mr. Sears.

And Mr. Sears mentioned when I pointed this out to him, that theirs is proprietary in some fashion, and my thinking was, well, if they are unwilling to supply the State a copy of their transcript for that reason, then I certainly would supply them a copy of my transcript -- and I am willing to do that anyway -- but I would like to be able to refer to the same pages and lines that

Mr. Sears is referring to when he is cross-examining the witness, or -- and I know it would be cumbersome and I don't want him to do this, unless it's absolutely necessary, but if we have -- if he could show at the same time -- if he would show me what he is referring to then, when he questions the witness, the page and line.

THE COURT: John.

MR. SEARS: This sort of began as a problem is that over the course of the last two plus years, we have gotten relatively few transcripts disclosed by the State of interviews. The transcripts that we have gotten have primarily been of our client and a few other people. But I think -- and I think the State would have to agree -- that they have not disclosed to us every transcript that

they have and if I am wrong, then I'm wrong, but I don't think that is true. For example, we don't have a transcript of their transcript of my interview of Dr. Fulginiti and there never was any agreement or understanding.

We have paid considerable amounts of money over time to have many things transcribed including the thousands of jail calls and all of the other things that the State has disclosed in an un-transcribed way.

And I can't predict -- for example, I will tell you coming up we have Eric Gilkerson is going to be on next week. We did a defense interview of Gilkerson.

We have our transcript of Gilkerson. I don't know whether the State has a transcript of that same interview. They were on the phone. We were in Virginia and they were here. But that's an area where I am sure Gilkerson will be cross-examined from a transcript of his defense interview. You can count on that.

wants to disclose this. What we have done -- we have seen this a couple of instances, not surprisingly -- given the fact that there are different transcripts, I think, so there have been some differences and sometimes some terrible differences between the two transcripts. And so I am not prepared and any more than I think State would be

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prepared to concede one transcript or the other is the accurate or the more accurate rendition of the person's statements.

So I can show it to them. With experts, I have a number of excerpts marked to finish with this witness, and we can talk about what to do with witnesses like Gilkerson. There are also lengthy interviews that Ms. Chapman and Mr. Hammond did of some of these DNA witnesses that are scheduled for next week and you can be sure they would be questioned about those or impeached with them if they testified differently.

THE COURT: Well, Rule 613 tells you what you have to do if the other side wants to see the statement.

So it's got to be there --

MR. SEARS: What --

THE COURT: If there is a dispute over which is accurate.

MR. SEARS: That's right.

THE COURT: It's very disruptive when those kind of things come up. It really is. And that's one thing prior disclosure can take care of. That's something that an agreement as to splitting costs can take care of. Various things like that. And to get into trial and just have everything pinned down, wind down, stop...

MR. SEARS: We can disclose every transcript if

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the State would give us a check for half of the cost.

MR. BUTNER: Well --

MS. CHAPMAN: And we have offered to do that and have done that with respect to several transcripts.

MR. BUTNER: I was just going to say. It was my understanding that we had done that along the way. I don't know that we have done it in every instance.

But we haven't spent -- the State hasn't spent as much money I think as defense in terms of getting everything transcribed in this case.

And in some instances, this being I think one of them, we were not presented with the option to my knowledge of splitting the cost of transcription of this witness' testimony. If I had been presented with that option, I would have agreed to do that.

But we have done that at a number of points in this case, and I just got the transcript today of this witness' testimony. To my knowledge throughout this case, we have disclosed our transcripts that were done by the State to the defense. I am not aware of times we have not done that. I certainly would have done that had I been asked about that, and I thought it had been done.

THE COURT: Well, are you foreseeing some definite issues coming up here soon? This wasn't a problem in the first session.

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MR. BUTNER: You know, there wasn't a problem because they didn't say anything, Judge. I was trying to find where he was at in the transcript that I had and I am thinking their transcript has got to be different because I am nowhere close to that and I can't seem to find what he was talking about at page 59, for example.

MR. SEARS: And why the State would think we would have their transcript if they just got it today is hard to understand.

MR. BUTNER: Well, it was transcribed. It wasn't provided to me interestingly enough.

MR. SEARS: I have no way of knowing that.

THE COURT: Well, for future witnesses, let's be conscious of that and if possible to exchange -- if it's possible to exchange transcripts and share costs. If those incidents can be worked out in the future, then I encourage that. For today we'll just have to move ahead.

MR. SEARS: The vast part of this work has been done on these witnesses. The witnesses that are coming up have all been interviewed as I am sure you're beginning to see, we interviewed virtually every witness that they had and the ones that weren't interviewed were the custodians of record and things like that, but --

MR. BUTNER: And --

MR. SEARS: I'm sorry. I was going to say that,

14:53:40 1 you know, we have our transcripts. We have no way of 14:53:43 knowing either if the State has given us all the 2 14:53:46 3 transcripts or not. We know that just in general terms 14:53:49 there are many more witnesses who were interviewed than we have State's transcripts for and we just don't know 14:53:53 6 whether that's because they haven't given them to us or 14:53:55 they haven't transcribed them. We just don't know. 14:53:58 7 I will have a paralegal contact MR. BUTNER: 14:54:01 their paralegal and make sure they have copies of our 9 14:54:03 10 transcripts. 14:54:05 11 But I also point out I think the situation 14:54:06 12 14:54:10 14:54:14 13 4:54:17 14 15 14:54:20 14:54:22 16

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where the transcripts are being paid for with Public Defender funds and that's taxpayer dollars, I think they could share that with us. If they are not paid in that fashion, then of course it's a different matter and I will ask Mr. McGrane to arrange to write them a check for 50 percent, but I would like to get copies of those transcripts.

MR. HAMMOND: Judge, I think we're about to embark on a problem here. First of all, some of the things that Mr. Butner said are things that we would not respond to in any proceeding other than an ex parte proceeding, but, secondly, the Court should understand I think what I know that they understand. For virtually every interview that both sides attended, and this is just
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one example, but for every one of those interviews, there were what lawyers laughingly sometimes call dueling recorders. They brought a digital recorder and we brought a digital recorder, and we did that for now the last, I don't know, two years.

And throughout this process, to the extent that they wanted to have their own transcript, they made it. To the extent that we wanted to have a transcript, we made it.

There have been some times when a transcriber didn't work. Mr. Paupore I know recalls that because he helped me out. I think at least a couple of times when I had a recorder failure and we did work out on those isolated instances making a CD available so that we could then do our own recording from theirs.

But throughout this case, that's the way it's been done. There were efforts very early on to see if we could do it in a cooperative way and that didn't work, and so we have gone through this whole case with our own transcripts and our transcripts have actually been read by people and summarized as part of our work product.

And so for us to now say, wait a minute, we are not going to either use ours, we are going to use theirs, which I think would throw our summaries off -- I certainly wouldn't be prepared to start over. I don't

have enough time left in my lifetime to do that. This is
a problem that has been there all along. If there is some
particular thing that they don't have a record of, then we
can talk about it.

But I certainly don't want to have the Court be under the impression that this is some kind of a problem that can be solved today by -- by them just -- they have never given us transcripts of interviews both sides have attended. I think I can say never. I don't think anybody ever intended to do that. This is -- I mean if Mr. Butner was under the impression that was happening, I'm sure his staff will set him straight on this. They have not done that at any point in this case.

So we are left with possible pagination inconsistencies and possible recording and transcribing inconsistencies, but we have had that from the beginning.

MR. BUTNER: Well, Judge, I know at least one interview where Mr. Hammond was present and I think I attended telephonically and I think that we shared the cost of that interview somehow and I can't remember, I think it was back in Georgia or some place like that, and there may be more than one. But I just remember that one offhand. This case is just -- Mr. Hammond is right. We sure had these sorts of problems all along. Sometimes we are able to get by them and handle them and sometimes we

1 are not. 14:58:22 4:58:22 14:58:24 3 14:58:30 5 14:58:33 14:58:39 14:58:42 7 14:58:48 9 there has ever been --14:58:50 14:58:51 10 11 14:58:53 14:58:55 12 13 14:58:57 MR. BUTNER: 4:58:59 14 have paid half? 15 14:59:00 14:59:02 16 17 14:59:04 when we have. 14:59:07 18 19 MR. HAMMOND: 14:59:08 14:59:10 20 14:59:12 21 14:59:14 22 you. 23 14:59:18 24 14:59:20 MR. BUTNER:

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MR. HAMMOND: I don't think we have ever had a time though in which they have asked us for a copy of the transcript that we haven't given it to them in exchange for them paying half of the cost that we incurred. If that is what they are saying, that they want to just pay half for any transcript that we have, that's -- I don't know. Ann, maybe you can respond to that. I don't think there has ever been --

MS. CHAPMAN: I don't think there ever been a time. I know we have done this a couple of occasions and that is how it has worked out.

MR. BUTNER: Isn't there a time or two when we have paid half?

MS. CHAPMAN: Yes. When you have asked for them and you have paid half, we have given them to you.

MR. BUTNER: Yeah. So there has been sometimes when we have.

MR. HAMMOND: There has. I wasn't ever suggesting that there haven't been.

MS. CHAPMAN: We have never been provided them by

THE COURT: As with -- go ahead.

MR. BUTNER: That may be true. You know, I can't dispute that at this point in time. I certainly would be

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willing to provide you any transcripts that I have and will continue to be in that position. I wasn't trying to keep them from you in any fashion. I know we have provided you transcripts of the interviews of your client. That's for certain. So I guess that's a fairly obvious example, but I guess then if we can't get this worked out, it sounds like we are not going to be able to, that I would have to look specifically how Rule 613 reads, but I think then they need to be able to show me the transcript as we proceed in this fashion.

THE COURT: As with the witness list issue we talked about yesterday, I will just encourage cooperation. I know I have not been around the case very long and there is a lot of history. I referred it to as background yesterday, and I am aware of that. But I will just encourage cooperation and for today, if there's going to be some type of impeachment with a statement or showing of a statement, the other side gets to see it and it's just going to make things run slowly and that's not good to have things tied up and people are fumbling around trying to find the page.

MR. SEARS: Maybe put it up on Elmo. Put them up on the Elmo.

MR. HAMMOND: Maybe I wasn't clear enough.

MR. BUTNER: That would be fine to put it up on

1 the Elmo. 15:00:56 5:00:56 MR. HAMMOND: If --15:00:57 3 MR. BUTNER: Sure. 15:00:58 MR. HAMMOND: On any transcript that they have ever wanted of ours and I don't know how many that we have 5 15:01:02 done so far, but if they want to give us a list of the 15:01:05 15:01:11 7 transcripts of ours, of the interviews that we did together and if they're willing to pay for half of what we 15:01:14 9 paid, we will send them to them. We will send them an 15:01:19 10 invoice and they can pay for them and we'll get them to 15:01:23 15:01:27 11 them and that way you won't have this issue at all. 15:01:32 12 But we are not going to -- I wouldn't be prepared to think about doing it any other way. 15:01:35 Okay. I would like to bring juror 13 15:01:39 14 THE COURT: 15 in for a minute and then Sandi and Heather, everybody will 15:01:42 16 need a bit of a break. 15:01:45 15:02:26 17 (Whereupon, Juror 13 entered the Court's chambers, to wit:) 18 15:02:32 Hello, sir. If you could just please 19 THE COURT: 15:02:51 15:02:54 20 have a seat right there. THE BAILIFF: That is something else. 15:02:57 21 22 the case I am told. 15:02:58 Okay. Record should show we have the 23 THE COURT: 15:03:00 attorneys present and juror number 13. We use numbers as 24 15:03:04 25 you know. 15:03:07

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I did get your note and it appears maybe today it's not been an issue yet because of the weather. I just wanted to assure you we are very concerned and we're going to take care of that.

I know from past experience glare is really disturbing. It comes in in the afternoon at certain times of the year anyway and it actually disrupts people, you know, working with computers on that side as well.

What I was thinking, Mr. Wagnon, is the way to go might be if we could -- is it just the one right next to the clerk's station there, right behind there? Is that where it is or all along the wall?

JUROR: No. The window that is behind the defense table, not the window that's at the far end of the Court.

THE COURT: Okay.

JUROR: Just when the blinds are partly closed, the sun comes in and the glare hits them and comes out.

THE COURT: When the blind's at a certain angle and --

JUROR: Yeah. As the sun moves across, that angle changes. Earlier in the year, the sun was higher and -- but it's getting to be where it's more constant and after lunch and so, if the blinds are closed, then there is no problem.

1 The window in the back? 15:04:39 THE COURT: 5:04:40 2 JUROR: The window in the back doesn't bother me 15:04:43 3 at all. 15:04:43 THE COURT: Okay. That is what we're going to go 5 ahead and try, but do exactly what you did before. 15:04:45 6 there are any issues, let us know and we will address it. 15:04:48 7 JUROR: Appreciate that. 15:04:51 THE COURT: Okay. Thank you. We will start up 15:04:52 8 9 15:04:54 as soon as we can. 10 (Whereupon, Juror 13 left the Court's chambers.) 15:04:56 11 MS. CHAPMAN: Was there some other issue Phil 15:05:05 15:05:07 12 brought in or not about this? 13 THE COURT: Oh. He did hand me something. 15:05:09 Well, just -- you never know. Who wants to 15:05:20 14 15 read it first. 15:05:23 16 Do you want to address this now? 15:06:45 certainly have to take it up at some point. 15:06:47 17 That's a jury instruction. You may 18 MR. BUTNER: 15:06:50 19 consider the witness' demeanor when testifying and so on. 15:06:52 15:06:56 20 MR. SEARS: It's a jury instruction. That's 21 15:06:58 exactly right. But it may be that that juror wants to ask 22 15:06:59 the witness that kind of a question is what it looks like 23 15:07:04 24 to me, also. 15:07:09 So I mean I don't think it's appropriate 25 15:07:10

I could

15:07:11 1 that the Court or counsel answer that question, but it 5:07:15 2 might be necessary for the witness to answer that 15:07:18 3 question. 15:07:21 MS. CHAPMAN: Question of law. The question is 15:07:22 5 can they consider. We have had some other questions of MR. BUTNER: 15:07:26 law asked, I think, of witnesses. 15:07:27 7 THE COURT: While we are on the record here, I 15:07:30 9 will note with counsel present, are we going to get to 15:07:32 jury questions today? To this -- for this witness? 10 15:07:36 11 MR. SEARS: I don't have a huge amount of 15:07:40 15:07:42 12 additional cross-examination of this witness. 13 THE COURT: Because I just think it's something 15:07:46 5:07:47 14 to address after this witness is excused. I need to say 15 something just in a very general sense. 15:07:50 MR. SEARS: You could read the RAJI on witness 16 15:07:54 credibility. It's pretty short. 15:07:57 17 Just wondering if that instruction 15:08:01 18 MS. CHAPMAN: was included with the preliminary instructions. 19 15:08:03 20 take a look because I have them here and I could let you 15:08:05 15:08:08 21 know. THE COURT: I don't have mine here. 22 15:08:08 MR. BUTNER: I don't think it was. 23 15:08:09 MS. CHAPMAN: You do not? 24 15:08:11

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don't think that was one of the usual preliminary times.

THE COURT: Manner while testifying. Really?

MR. BUTNER: I don't think so.

THE COURT: That should.

MR. BUTNER: Not like the usual expert type instruction.

MS. CHAPMAN: I can look easily. I can go look and provide the answer.

THE COURT: We will take this up, but it needs to be done sooner rather than later, but I think it can be done after.

MR. SEARS: I wasn't going to, but I could display it. There was a question that I asked her and her answer in the defense interview was bite me. Maybe that would help the juror understand whether she is prejudiced or not.

THE COURT: We will start up here.

MR. BUTNER: Along those lines though, Judge, and not really along those lines, but I don't have another witness scheduled unless I call somebody right now and I have to give him an hour's notice or so to get him here.

MR. SEARS: It's ten minutes after 3:00.

MR. BUTNER: Right. And so I am wondering.

THE COURT: I think --

MR. SEARS: I suggest another 30 minutes at most.

Maybe that

1 don't think that was one of the usual preliminary times. 15:08:14 5:08:16 2 THE COURT: Manner while testifying. Really? 15:08:21 MR. BUTNER: I don't think so. 15:08:21 THE COURT: That should. Not like the usual expert type 5 MR. BUTNER: 15:08:22 15:08:24 6 instruction. MS. CHAPMAN: I can look easily. I can go look 7 15:08:25 and provide the answer. 15:08:27 9 We will take this up, but it needs to THE COURT: 15:08:29 10 be done sooner rather than later, but I think it can be 15:08:33 15:08:36 11 done after. MR. SEARS: I wasn't going to, but I could 15:08:37 12 display it. There was a question that I asked her and her 13 15:08:39 answer in the defense interview was bite me. 5:08:41 14 would help the juror understand whether she is prejudiced 15:08:44 15 16 or not. 15:08:47 15:08:50 17 THE COURT: We will start up here. MR. BUTNER: Along those lines though, Judge, and 18 15:08:53 not really along those lines, but I don't have another 19 15:08:55 15:08:59 20 witness scheduled unless I call somebody right now and I have to give him an hour's notice or so to get him here. 15:09:04 21 It's ten minutes after 3:00. 22 MR. SEARS: 15:09:10 And so I am wondering. 23 MR. BUTNER: Right. 15:09:11 THE COURT: I think --24 15:09:14

MR. SEARS:

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I suggest another 30 minutes at most.

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case, it's important to keep an open mind about what possibilities there are in the world and I think testing other objects was a way of maybe honing in on what the implement might have been.

Q The idea as part of your scientific method would be to rule in certain objects and rule out objects, right?

A Yes.

And you have told us the kind of objects you ruled out. For example, a ball-peen hammer because it made that round precise circular impression and you in your mind could rule that out as being the cause of this fracture on the right side of Carol's head, correct?

A Yes.

Q But then when you start talking about ruling in objects, do you remember a discussion you had with me in March about the Home Depot?

A Yes.

Q Okay. Okay. And I think what happened was I suggested to you that you could go to a place like a Home Depot and possibly see all different kind of objects or instruments that might cause these kinds of injuries, and do you remember what you said?

A Specifically?

Q Do you remember what you described? You said you took a visit to the Home Depot and do you remember what

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you called it?

- I called it the wall of death.
- And what did you mean by the wall of death?
- A I think I was referring to Sears and I said Sears has an awesome wall of death.
- Did you -- and I wasn't sure whether you were Q talking about me or the department store.
- See. I was actually discussing the Oh, wow. department store, but now that you mention it...
 - Q What you said --
- I had a case where I had these very round defects that actually had a little edge on them and I referred to that as a bevel around the edge. So it's like a hole and then it has an extra line and I thought, well, it must be easy to go to Home Depot or Sears or Ace Hardware and look at the implements that are available and look and say, ah ha, it must be that or it must be that.

And when I got there, Sears has this wall of Every single one had a bevel. They were all They were different shapes and sizes and I different. just sort of ran away screaming saying, okay, the wall of death is not the answer. So that's what I meant by that.

In a serious way though, we had talked about primarily objects that are readily available. Things that we know about. Crowbars, hammers, golf clubs. And then

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15:26:35 1 we talked about homemade objects. 15:26:36 2 But a place like Sears and Roebuck or Home 15:26:40 3 Depot would be an example of a place that would have in 15:26:44 one area all kinds of objects that would meet your basic criteria for having caused these injuries, right? 15:26:48 5 Yes. 6 A 15:26:51 In terms of heft and weight, for example, right? 15:26:51 7 Q Yes. 15:26:55 A Some of them might be tools, might by garden 9 15:26:56 Q implements, correct? 10 15:26:58 11 A Yes. 15:26:59 There might be pieces of wood or metal that under 15:27:00 12 Q certain circumstances could be used to cause these kind of 13 15:27:03 15:27:07 14 injuries, right? 15 A Yes. 15:27:08 And then you don't have to go into a store. 15:27:09 16 Q 17 it were a river rock, those river rocks could be almost 15:27:11 anyplace, right? 15:27:14 18 19 Right. 15:27:14 A 15:27:15 20 Q And have you ever seen pictures of the crime scene in this case of the outside of the house? 15:27:18 21 22 I have not. 15:27:19 A So you wouldn't know if there just happened to be 23 15:27:20 24 river rocks all around? 15:27:22

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I don't.

15:27:35 2 15:27:37 15:27:42 15:27:45 5 15:27:50 15:27:55 7 15:27:57 9 15:27:57 10 15:27:58 11 15:28:02 12 15:28:06 13 <u>1</u>5:28:08 15:28:08 14 15 15:28:11 15:28:15 16 17 15:28:15 15:28:17 18 19 15:28:19 15:28:22 20 15:28:23 21 15:28:27 22 23 15:28:32 15:28:36 24

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Q You and I had some additional conversations back in March, though. I want to pick up again with you here today about different kind of scenarios that involved this concept of impact versus -- and I really don't have a better word for this -- versus a blow from an object. Is that a fair point/counter point? You have impact and then within the range of impacts, you have blows from an object?

A Yes.

Q Okay. And what we had talked about was the fact you have seen some crime scene photos of Carol Kennedy lying on the floor in her home, correct?

A Yes.

- Q And you have seen how she was positioned, right?
- A If you have a photo, it would be helpful for me to look at it.

Q We will get one out here. The problem is,

Doctor, we have been displaying those because of the

graphic nature, we have taken that screen out here and we

have set that up, but we could do that.

But I can tell you generally that she was found lying on the floor mostly on her right side with her right arm under her body and the right side of her face down, so you could see the left side of her face and her legs were crossed in a particular way.

15:28:41 1 15:28:42 2 15:28:43 3 15:28:43 5 15:28:46 6 15:28:50 15:28:52 7 15:28:56 9 15:28:57 10 15:28:58 11 15:29:03 15:29:06 12 13 15:29:10 15:29:13 14 15 15:29:20 15:29:23 16 17 15:29:26 15:29:28 18

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Does that help you remember what was in the photographs?

A Yes.

Q But the point that I am particularly interested for your work is the fact that she was found lying on one side of her face. She wasn't face up or face down. She had her right side down and left side of her face up.

Do you remember seeing those pictures?

A Yes.

Q Okay. Now, we had talked about the fact that the room she was in had carpeting not terribly unlike this carpeting with a cement slab under that.

If she were lying with her right side of her head on a carpeted cement slab and a powerful force was applied to the left side, for example one that would cause all these terrible comminuted fractures that we have seen on the left side, is it possible that she had a transferred fracture on the right side of her face from being in that position?

A Yes.

Q Okay. And would that -- now, the problem is, you talked about focal points. Okay. And focal points I think when we were talking about them here today, had to do with these chips that are missing, these little chips of bone that are missing out and the difficulty in finding

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a surface that would account for that, right?

A It's partly that and partly the convergence of the fractures where they come together.

Q Okay. Now, do you remember that when we were talking -- I think we may have even looked at some pictures -- but I told you that there were -- there was a piece of desk corner molding that -- and the jury has seen this -- that comes off the corner of the desk and she was -- do you remember she was in front of her desk?

A Yes.

Q Okay. And there was -- I know you remember the blood that was on the desk, right?

A Yes.

Q Okay. And there was a piece of molding that had come off and that molding was on the ground very near her arm and head and had blood on it in the pictures.

Do you remember seeing that?

A I don't, but I remember you telling me about it.

Q Okay. Now, this was -- you asked me some questions about this molding and Mr. Robertson and gave you some details that it was -- it was particle board and it was a quarter round and it did have one straight edge on it that you could see, because he and I have looked at it, and we talked about whether or not that might be a focal point if at some point her head had been lying

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against that molding rather than just on the floor.

Do you remember talking about that?

- A Yes.
- **Q** And would that be an example of a kind of focussed focal point that might account possibly even for a chip on the right side?
- A Conceivably if her head was laying on it just -just at -- my understanding of it is that's it's a long
 piece, right?
 - Q It's the height of a desk.
- A So the focal point would be at the edge of it where it actually drops off. That's the focus?
 - Q Right.
 - A So conceivably, yes.
- And then we talked about the surface of the desk and if you remember on the top of the desk if you were looking at the desk this way, about where these blue folders were, there was a great deal of blood pooled up on the top of the desk.

Do you remember seeing those pictures?

- A Vaguely, yes.
- Q But would that be an example, for example, if her head had been against the desk, right side of her head against the desk and a blow or blows had been struck with something to the left side of her face, could that hard

15:31:55 1 5:32:00 2 15:32:03 15:32:04 15:32:05 5 15:32:08 15:32:12 7 15:32:15 15:32:19 10 15:32:21 15:32:26 11 12 15:32:28 15:32:30 13 15:32:31 14 15 15:32:34 15:32:38 16 17 15:32:42 15:32:44 18 19 15:32:44 20 15:32:48 15:32:51 21 15:32:56 22 23 15:33:00 24 15:33:02 25 15:33:04

surface of the desk be similar to the floor in terms of providing resistance to create fractures on the side that was down?

A Yes.

Q Okay. And what about the corners of the desk?

Dr. Keen has offered some opinions about the corners of the desk and the first thing I want to ask you -- you have talked a lot about this fracture that was over the left eye and it was a patterned fracture, right?

A No. No. It's a point of impact. So it's a plus shape, and it just means that's a place where the fractures come together where you can say that's the point of impact.

Q Okay. And there's been discussion in this case from other people about the possibility that Carol had either fell or was thrown against the desk face first.

You can't rule that out, right?

A No.

Mr. Butner even asked you today questions about the injuries. You had the La Fort fracture and you had some of these other fractures of the bones in the face below the eye and above the jaw that might have been caused by a face first impact, correct?

A Yes.

Q And she had black eyes and a fracture across her

15:33:06	1	nose, co	rrect?
15:33:07	2	A	I believe so.
15:33:08	3	Q	But as you said, she didn't have any jaw
15:33:11	4	fracture	. None of her teeth were broken?
15:33:13	5	A	Were chipped, yeah.
15:33:14	6	Q	So it may be the top part of her head had been
15:33:17	7	pushed i	nto the desk, right?
15:33:18	8	A	The top part of her face.
15:33:21	9	Q	I'm sorry. Face. Yes.
15:33:22	10	A	Yes.
15:33:22	11	Q	From this area more or less up?
15:33:24	12	A	Yes.
15:33:25	13	Q	Okay. There's no way to know, is there, whether
15:33:30	14	those in	juries and I think doctor, if not Dr. Keen,
15:33:34	15	somebody	else has said that there's really three time
15:33:36	16	periods.	There's antemortem, right?
15:33:39	17	A	Yeah.
15:33:39	18	Q	What does that mean?
15:33:40	19	A	It means there's some evidence of healing in the
15:33:42	20	injury.	
15:33:43	21	Q	So it's before death?
15:33:44	22	A	Before death.
15:33:44	23	Q	Okay. Then there's post-mortem which is
15:33:46	24	A	After.
15:33:47	25	Q	after death and then there is this area in
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1 between called perimortem, right? 15:33:50 5:33:52 2 Α Yes. 15:33:53 3 Q Which means? 15:33:53 A Around the time of death. That's kind of a vague term? 15:33:55 5 Yes. 6 A 15:33:56 Could be a little more, a little after, right? 7 15:33:57 Q Yes. 15:33:58 8 A And death -- in your line of work, how do you 15:33:59 9 Q define death? 10 15:34:02 I am not sure that I'm properly qualified to 15:34:03 11 Α 12 answer that question. 15:34:08 You think it's a medical term? 15:34:09 13 0 15:34:10 Α Yes. 14 And so you don't typically render opinions about 15 15:34:13 whether injuries are ante, peri or postmortem? 16 15:34:16 17 I do, but it has a different meaning than the 15:34:20 Α medical examiner. 15:34:22 18 What is your meaning? 19 15:34:23 20 An antemortem injury, the biggest difference is 15:34:24 15:34:27 21 that with soft tissue, it responds very quickly to injuries. So their windows of antemortem, perimortem and 15:34:29 22 postmortem are better defined and usually narrower. 23 15:34:33 With bone, bone takes longer to respond to 24 15:34:37

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being injured, so you don't see it as quickly.

5:34:47 2 any degree of healing, but the healing process can take 15:34:50 seven, ten, two weeks, seven to ten days, two weeks 15:34:53 4 depending on the person. 5 So the perimortem window is much larger. 15:34:54 15:34:58 6 And then post postmortem? Q Postmortem is like if a skeleton is out in the 15:35:01 desert and the coyotes chew on it or the cows walk on it 15:35:03 9 or --15:35:06 15:35:08 10 You know those when you see them? Q 15:35:10 11 A Yes. 15:35:10 12 Q I have had those cases, too. 13 Yes. 15:35:11 A So in this particular case, because we're dealing 15:35:12 14 with events that may have occurred in a relatively short 15 15:35:19 period of time, this attack on this lady may have only 15:35:22 16 taken a relatively brief period of time from beginning to 15:35:26 17 end, right? 18 15:35:29 19 A Can you define relatively brief? 15:35:29 15:35:32 20 Q A second? I mean, are we talking hours, minutes? 15:35:33 21 Α I don't know. Do you have an opinion? 22 0 15:35:35 No. 23 A 15:35:37 It's certainly more than a few seconds given the 24 15:35:38 Q number of fractures? 25 15:35:43

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perimortem injury for me is something that doesn't have

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A I would think so, although -- what do I think.

Certainly within a couple of minutes you could create that much damage.

And, of course, if you had multiple attackers with multiple weapons, the time to inflict those injuries would shrink accordingly, correct?

A I believe so, yes.

And you wouldn't have the ability from the anthropological work that you did to do anything in terms of sequencing the events other than the opinions you have given about some of these fractures being early in the event, right?

A Right.

Q And the event is the way you describe the attack from the beginning to end?

A Right.

I think attack is sort of a pejorative word.

It's heavy with meaning, so event is less emotional maybe.

Q I agree. I agree.

And whatever this was, it was emotional and horrible and unthinkable, right?

A It was, but I can't do my work if I think about that.

Q No. And I wonder sometimes how you can do your work though?

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- A I wonder every day.
- I wonder though about the idea that these facial injuries were inflicted when she was conscious or unconscious. Is that anything that a forensic anthropologist can offer opinions about?
- That's two different questions. A Okav. started by intimating that she was either conscious or unconscious.
 - 0 Yes.
- In general terms, there may be a situation where A you would have somebody injured and time elapses before they died and you would see some response from the bone. In that situation, a forensic anthropologist could opine about that.

In this case, no.

- Because it was a relatively short event? Q
- Yes. A
- It didn't take hours or days or weeks? 0
- A It didn't take days or weeks.
- Q Now, when you and I were talking about this in March, we were talking about scientific opinions again and I will be happy to show you, Mr. Butner, where I am looking at in my transcript. I am looking at page 139 if you want to join me.

Thank you. MR. BUTNER:

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MR. SEARS: Your Honor, what we're trying to do is each side has their own transcript and they don't match up, so I am trying to find a way to --

MR. BUTNER: Thank you, sir.

MR. SEARS: Let the State know what it is I am doing.

Q You and I were talking and I said at page 139 of my transcript, line seven:

And they're not -- no one, I assume, would have an appropriate scientific opinion looking at the skull whether they're a forensic pathologist or a forensic anthropologist, that would say one object and one object only caused every single fracture?

Of course I was talking about this case. Do you remember that?

A Yes.

Q And you said a very careful scientist would not opine that.

And I said such as yourself?

And you said such as myself.

Okay. And that was your opinion then and that would be your opinion today, correct?

A Yes.

Q So you can't restrict yourself to the idea that a Callaway Big Bertha Steelhead 3 Number 7 Fairway wood 15:39:21 5 15:39:21 15:39:24 7 15:39:25 9 15:39:27 10 15:39:37 11 15:39:53 12 15:39:56 15:39:59 13 15:40:02 14 15 15:40:03 16 15:40:05 17 15:40:05 15:40:07 18 19 15:40:08 15:40:13 20 15:40:16 21 15:40:19 22 23 15:40:22 24 15:40:26 15:40:31 25 caused every observable injury on this woman's skull, can you?

A I'm sorry. You said I can't restrict myself to that opinion?

Q Yes.

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- A That the golf club caused every injury?
- Q Yes, ma'am.
- A Stated that way, no, I cannot restrict myself.
- Q Later at page 147 of my transcript, we were talking about the shape of fractures and I said in part at line 14, sometimes the fractures take the shape of the object and sometimes they don't.

And your answer was correct.

Okay. This is something we talked about just today again, correct?

- A Yes.
- Q And that's true again today, isn't it?
- A Yes, it is.
- And so the idea that you saw this -- this

 patterned fracture on the right side of her head suggests

 to you an object and a particular kind of object so that

 you can't rule out a golf club, but you would agree with

 me that it is possible that that shaped fracture is not

 the result of being -- the skull being struck by an object

 of the same shape, correct?

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15:41:15	16
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15:41:23	19
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A I'm sorry. I lost track of your question halfway through.

Q I did. I got a little sideways there.

Okay. You said sometimes the fractures take the shape of the object and sometimes they don't, correct?

A Yes.

And would it also be fair to say that if you have a fracture that has a shape like this one, this fracture on the right side, that it does not automatically mean that fracture was caused by impact with a similarly shaped object, does it?

A Not automatically mean that it is not caused. So, in other words, it could have been impacted -- rather than the object impacting the skull, the skull could have impacted something with that shape and still had the same fracture?

Q Or could it be an example of what you told us now a couple of times is possible, which is it's a curvilinear fracture caused by a noncurvilinear object?

A That particular fracture? I am not as happy with that. I agree with you that in principle you can have a curved fracture from a non-curved implement. That particular fracture looks to me like a patterned injury that is mimicking either the object that struck it or an object that it struck.

15:41:48	1	Q Would you think that a reasonable forensic
15:41:51	2	anthropologist might disagree with that opinion?
15:41:53	3	A They could, certainly.
15:41:55	4	Q Because as much as forensic anthropology is a
15:41:59	5	science, there is some art to it, isn't it there?
15:42:02	6	A There's opinion.
15:42:02	7	Q And the opinion is unique to the observer,
15:42:07	8	correct?
15:42:07	9	A Yes. And the experience of the observer. I mean
15:42:10	10	I have seen a lot, so I kind of I rely upon my own sort
15:42:15	11	of Rolodex of injuries if you want to think of it that
15:42:18	12	way.
15:42:18	13	Q But if another forensic anthropology expert with
15:42:21	14	different experiences and different observations took a
15:42:26	15	different view, that's just the way science goes?
15:42:29	16	A That's correct. Yeah.
15:42:30	17	Q And when you present your papers to a group like
15:42:33	18	the American Academy, you're doing that because that's the
15:42:36	19	way to get peer review from other forensic anthropologists
15:42:40	20	of your work and your opinions, correct?
15:42:42	21	A Yes.
15:42:42	22	Q And peer review sometimes can take the form of
15:42:44	23	criticism of either your opinions or your methods, right?
15:42:47	24	A Yes.

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I don't know if it's -- you're trying to get peer review so that you can become better, but I don't know if you want -- like you are going there thinking, oh, I am going to get my bottom handed to me. I don't think you're really thinking about that, but -- but, yeah. Yes, in principle what you're saying is correct. That's scientific methods.

Q I think that is what lawyers do. I think lawyers walk in --

- A Expecting to have their bottoms.
- Q Sometimes. Sometimes.
- A I hope that I've accommodated you.
- Q Not every time. Not every time, Doctor.

And in this particular opinion -- in this particular opinion, you have told us now a number of times how you came to that opinion. May I -- may I presume that your opinion about the curved fracture on the opposite side towards the top is less certain, because the image in that fracture is less clear than the one on the right side?

A That it's -- that I am less certain it's a patterned injury?

- Q Well, let's start with that.
- A Okay.
- Q A patterned injury, you said you can't rule out a

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golf club, correct?

- A For that one on the left side, yes.
- Are you more certain about your opinion on the -with respect to the golf club, with respect to the
 fracture on the right side of the head than you are with
 the one on the left side at the top? Or are they the
 same? Do you have the same feeling about those?
- A Yeah. It's kind of a splitting of hairs if you want to think of it that way. When you say you cannot rule it in -- you can't rule it in or out, it's a broader brush than how you are trying to paint it I think.
- Q It would be a mistake, wouldn't it, for anyone listening to your testimony to come away thinking that you have said that a particular object caused any of the fractures on this lady's skull?
 - A That's correct.

MR. SEARS: No further questions.

THE COURT: Thank you, Mr. Sears.

Mr. Butner, redirect.

REDIRECT EXAMINATION

MR. BUTNER: Thank you.

Q Dr. Fulginiti, you have been provided with some information -- you were provided with some information about what the police had found in connection with this case at the time that you did your reconstruction; is that

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right?

- A Um, can you be more specific?
- Q I really can't, because I really don't know what you were provided with.
- A I did not know that they were looking at a golf club when I did my reconstruction.
 - Q You had no idea?
 - A No.
- **Q** Do you recall what information you had been provided by the police in terms of what they knew about the murder of Carol Kennedy?
- A Initially when Sergeant Huante called me, it was we have a woman whose skull might need a reconstruction. Quite honestly I don't recall if he told me they thought it was blunt force or not. It was just that there was a lot of trauma and I don't think that the head -- that the autopsy had been conducted at that point when I talked to him, and that was a like a courtesy call, heads-up type of thing.

And then when I spoke to Lieutenant

Rhodes -- at the time Lieutenant Rhodes about the case, it

was the skull has been subjected to blunt force. There's

a lot of pieces. We need you to do a reconstruction.

Q Did either Sergeant Huante or Lieutenant Rhodes suggest any kind of objects to you that would cause these

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injuries?

A I think I might have known that she was found next to the desk and that there was a bookcase or a bookshelf or something to do with books around her. But honestly I don't remember a specific object or objects that they were talking about at that time.

Q At some point in time, in fact, did you take a look at the desk?

A Yes, I did.

Q And when you looked at the desk, did you scrutinize the area of the desk as Mr. Sears was talking about the area along the edge and the corner and so forth?

A Yes, I did.

Q And did you have any -- what did you think about that as compared with the injuries to Carol Kennedy?

A At one point during the discussion with someone from law enforcement, it was probably Detective McDormett, they told me that the edge of the desk had a curve to it and I said, well, it would be very important for me to see the curve, because that's the injury that I am looking at.

So on the day of the interview with Mr. Sears, we looked at the desk and I looked at the outline of the injury and I drew it on a piece of paper and it is the mirror image of the injury on the right sides of Carol's head.

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So, in other words, the curve on her head goes this way, and the curve on the desk goes this way.

So it's opposite of what it should be if that caused that injury.

Q In other words, you concluded that the desk could or could not cause the injury on the right side of Carol Kennedy's head?

A That the part of the desk that had blood and the hair was the wrong shape to create that injury on her head, so that it could not have caused that injury.

Q What about -- what about the corner area of the desk, could the corner area of the desk in combination with the flat surface on top have caused any of these injuries that were visible when you reconstructed Carol Kennedy's skull?

A Yes.

Q Which ones?

A The one above her left eye. The one we have been talking a lot about. And then there is one on the back of her skull that we talked about early -- early this morning, like five o'clock --

Q Okay.

A -- on the back of her head. She has that area where the fractures look early in the event and there's a chip. That fracture also could have been caused by the

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edge of the desk.

Q And that's the fracture where the little piece of skull was missing from the outer layer?

A Yes.

Q And have you been provided by law enforcement with all of the information that they had that led them to believe that the weapon in this case was a golf club?

A Yes.

Q You have been provided with everything that law enforcement --

A Well, I don't know everything, but I know the rough story.

Q Okay. Were you provided with information about the missing golf club head cover?

A Yes.

Q And were you provided with information that there was no golf club found at the crime scene?

A Yes.

And in reaching your conclusions in this particular case, have you been provided with any information by law enforcement that causes you to be able to rule out usage of a golf club for the infliction of the injuries to the skull of Carol Kennedy?

A Have I been provided with any information from law enforcement that allows me to exclude the golf club?

15:51:01 15:51:04 15:51:10 15:51:14 15:51:16 15:51:18 15:51:22 10 15:51:26 11 15:51:29 12 15:51:33 **5:51:38** 13 15:51:45 14 15 15:51:50 16 15:51:53 17 15:51:57 15:52:00 18 19 15:52:03 15:52:14 20 15:52:16 21 15:52:19 22 23 15:52:22

Q That's correct.

A No.

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Have you been provided with any information from Q any source that allows you to exclude or rule out the golf club as the source of the injuries that you have been talking about to Carol Kennedy's skull?

No.

When you say patterned injury, I am not sure I Q got that absolutely clear. Would you explain what you meant by that specific term a patterned injury?

When you look at Carol Kennedy's skull, there's a lot of fractures. Most of those fractures are comminuted. Nonspecific. They run across the skull. Multiple. They're in different path -- they're in different That's a bad word. They run vertically. vertices. run horizontally. There are two that have a distinct outline that resembles a pattern.

A pattern injury is the round head of a hammer, the claw of a hammer, a crowbar, an axe handle. Those are examples of a patterned injury.

And the injury on Carol's head that's on the right, the curvilinear injury and that injury on her -that drops down and curves to the front like this, those are two injuries that I would consider to have a pattern as opposed to just being comminuted fractures that don't

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have any rhyme or reason to them.

Q And in the case of those two patterned injuries, was there anything about those -- are those the injuries -- let me just back up for a second.

In the case of those two injuries, the one that's on the right with the curvilinear aspect and then the one that is on the left that comes down from the top with the curvilinear aspect to it, are those the injuries that gave rise to your belief that a golf club could be the instrument that caused those injuries?

A It's the one on the right that I saw before I did any reconstructing and I just thought to myself, wow, that looks like a wood.

Ann Kromen, did you review the photographs of the type of fractures that she studied when she used that curved object that she dropped on skulls?

A Yes.

Q Did those injuries -- were those injuries patterned type injuries?

A I would not describe them that way, no.

Q How were they different from the patterned injuries that you observed on the skull of Carol Kennedy?

A In that -- in those cases, what I observed was that they were the same type of plus shaped or star shaped

that we have been talking about where you see convergence 15:53:54 1 15:53:57 2 15:54:00 15:54:03 15:54:11 5 6 15:54:13 7 15:54:17 15:54:21 9 15:54:24 15:54:26 10 11 15:54:29 15:54:32 12 13 15:54:32 15:54:40 14

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of fractures, and then they radiate out from a center point. You don't -- I didn't observe any of these ones that have a clear pattern to them. It's more -- I wish I could describe it better. It's just un-patterned. is not a specific -- you don't look at it and say, oh, that's a ball-peen hammer. Oh, that's the claw. know, oh, that could be X, Y, Z. There's nothing that occurs to you when you look at it. You just say, oh, that could be a two by four or that could be a ball bat or, you know, something that doesn't have any kind of character to it.

- Your job isn't to determine the cause of death, Q right?
 - Correct. A
 - That's the job that is left to the M.E.? Q
 - That's correct.
 - Right? Q

In determining -- in looking at injuries and determining the cause of death, or in determining whether they're patterned injuries, would it be of assistance to you in looking at what kind of -- and considering what type of object caused the injuries, if you were able to see what types of lacerations had occurred to the scalp that overlaid those fractures and bony injuries?

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- A Sometimes it's useful, yes.
- **Q** And how would it be useful to you in arriving at what type of object caused those bony injuries if you were able to see what types of lacerations overlie the injuries?

A I will give you an example. I had a case with a dry wall hammer, and for those of you that don't know, as I didn't know before this case, a dry wall hammer has a waffle pattern on it. You are all nodding, so obviously you are smarter than me. It has a waffle pattern on it so that you can pound the dry wall.

In this particular case, the soft tissue had the same waffle pattern on it, and then when you took it off the bone, the bone had little square edges that matched the square edges on the waffle and on the outline of the hammer. Now, obviously you are not going to see the waffle pattern on the skull, but knowing that the waffle existed on the soft tissue was helpful in determining that weapon could not be ruled out.

So my findings supported that of the Medical Examiner.

Does that make -- does that answer your question?

- Q I think that it does. That's an example?
- A It's an example.

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- And so if you were to drop a heavy object straight down on a skull that was laying on a concrete slab, would the type of injury to the soft tissues on the outside of the skull help you in determining what type of object caused the injuries to the skull that was laying on the slab?
 - A It could be, yes.
 - Q And how would that be of assistance?
- A If the object that was dropped had a shape to it and you could see the shape of the object in the soft tissue, that would be helpful.

If it was a particular size, although the skin is not great for that, but, yeah, the shape of it might be the most important part.

- **Q** So you could see the shape of the object that struck the soft tissue by the lacerations in the soft tissue?
 - A Sometimes you can, yes.
- Q Okay. What type of -- are you aware of what type of lacerations occur when you drop a -- a large round type of object straight down on a skull that's covered with skin?

MR. SEARS: Foundation. Form of the question.

THE COURT: First it was yes or no, so overruled.

That may be answered yes or no if you can answer.

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THE WITNESS: If I can answer.

MR. BUTNER:

Q Are you aware of what types of injuries are caused by that type of object to the soft tissue when it's dropped straight down on a skull?

A Yes.

MR. SEARS: Vague, ambiguous, your Honor. How big is the object? How far is it dropped from? What part of the skull was impacted?

THE COURT: Overruled. I think you answered, but you may answer the question.

THE WITNESS: Yes

MR. BUTNER:

Q What types of lacerations or injuries to the soft tissue can be caused by that type of an object dropping down on a skull covered with skin?

A What you would likely see, if it's over a bony prominence, you are going to see a split along the prominence. If it's over the round part of the vault, you are going to see a split where it's pushed the skin out of the way as it was moving through the skin to the skull.

Q Is that type of a laceration to the skin caused by such an object likely to be of a curved nature as it overlaid the fractures?

A I think it depends on the shape of the object

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doing the hitting and where it hits on the skull.

Q If it has the curved edge to it, it would cause such lacerations?

A If it's a very prescribed curve. If it's more of a generic curve, it may be not so much.

Q So it needs an edge to cause such lacerations?

A It needs to be narrower. I keep using the word circumscribed, proscribed, narrower. It needs to be smaller and more focused.

Q So what you consider yourself -- what you look at when you are doing your job are the bones?

A Yes.

You don't look at the soft tissue?

A Sometimes I see it because I work in a Medical Examiner's office, and I do find it's helpful to have more information than less, but primarily my job is to look at the bone, make an independent assessment of it, and then tell the Medical Examiner what my findings are.

Q And the Medical Examiner is the person that basically looks at the totality of the picture and makes a decision in terms of the cause of death?

A Yes.

And also then the Medical Examiner based upon not only the bony injuries, but also the soft tissue injuries, they offer opinions concerning the type of murder weapon?

1 A 16:00:21 Yes. They could. Yes. 16:00:28 MR. BUTNER: I don't have any further questions. 16:00:30 3 Thank you, Judge. 16:00:30 4 THE COURT: Thank you Mr. Butner. 5 Ladies and Gentlemen, do you have questions 16:00:31 16:00:34 6 for Dr. Fulginiti? 7 We have some questions. So, Dr. Fulginiti, 16:00:37 what I am going to do is take a recess here while we 16:00:41 8 quickly review the questions. 16:00:45 16:00:47 10 THE WITNESS: Okay. 16:00:47 11 THE COURT: On the record and I will ask you 16:00:49 12 to --THE WITNESS: That I would go away. 13 16:00:50 THE COURT: Actually if you would excuse yourself 16:00:51 14 now, that would be fine. Please watch your step. 15 16:00:54 I will. 16 THE WITNESS: Thank you. 16:00:56 THE COURT: You can wait until the jury exits. 16:00:57 17 Whatever you wish. 18 16:01:01 (Whereupon, the witness left the courtroom.) 19 16:01:08 THE COURT: Ladies and Gentlemen, take your time 16:01:09 20 and make sure you get the questions that you would like 21 16:01:10 posed. Get an idea of how many we have. 22 16:01:13 Thank you, Ladies and Gentlemen. 23 16:02:26 Okay. We will go ahead and take a recess. 24 16:02:27 be ready to come back in 20 minutes. Hope to get started 25 16:02:30

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at 25 after. Thank you.

(Whereupon, the jury left the courtroom.)

THE COURT: Counsel, if we could start to review the questions. Go on the record then with the jury not present and the attorneys present. Mr. Democker present.

Number six and seven. Well, number six the attorneys have seen, and number seven we had it in pencil. Has to do with scheduling and I am going to adjust the start time on Tuesday. There may be other legal matters to address anyway, but I guess you might not have been able to read, but it just had to do with a conflict one of the jurors has temporarily in getting started right at 9:00.

MR. BUTNER: We're going to get a darker copy of these?

THE COURT: Yes. You are going to get a better copy of that. Phil is working on that.

MR. BUTNER: Okay.

THE COURT: Number six. What I thought I would do is I don't want to address anymore today, just speaking in a general discussion about lighting. I thought I would address that and then just go over this preliminary instruction that would apply to number six when we resume. I want to have that in a setting that's a little bit separated from the discussion of the questions here.

But if you look at number one, first 1 16:07:52 16:07:57 2 question, when received skull, did it still have scalp? 16:08:02 Any objection, Mr. Butner. 16:08:03 MR. BUTNER: No objection. Mr. Sears? 5 THE COURT: 16:08:04 6 MR. SEARS: No objection. 16:08:04 Okay. One will be asked. 7 THE COURT: 16:08:05 16:08:08 Number two. Did you see the actual desk or 8 photos of the desk? 9 16:08:14 10 Objection? 16:08:15 11 MR. BUTNER: None. 16:08:15 16:08:16 12 MR. SEARS: No objection. THE COURT: Two will be asked. 13 16:08:17 Three has several parts. Part one, and once 16:08:20 14 again referring to exhibits, so if the attorneys can be 15 16:08:23 familiar with those. Part one. Exhibit -- oh, it's 3027 16 16:08:28 and 3029. Inner or outer table view? 16:08:37 17 Any objection? 18 16:08:43 MR. BUTNER: No objection. I think we need to 19 16:08:45 hand those photos to her. Are those the actual exhibits 16:08:48 20 21 16:08:51 that you have? 22 MR. SEARS: Yes. 16:08:53 MR. BUTNER: And it may be necessary, and I am 23 16:08:56 thinking it might be necessary to show these to the jury. 24 16:08:58 I think it would be more clear.

THE COURT:

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MR. SEARS: Then we'll have to put the screen up.

THE COURT: I know.

MR. BUTNER: Either that or we --

MR. PAPORE: Just publish them by passing photos around, Judge.

Whoever is asking the question has THE COURT: specific exhibits in mind. Perhaps the witness can just demonstrate. Stand and demonstrate.

MR. BUTNER: Stand in front of the jury. That would be good.

THE COURT: I haven't heard from defense yet if they are objecting to part one.

Tell me again, your Honor, what MR. SEARS: No. you were thinking about doing? Displaying these photos?

Just having Dr. Fulginiti stand and THE COURT: say 3029, that's an inner view or outer view and just describe in that fashion rather than saying --

Maybe she can just be told the Sure. MR. SEARS: reason for doing that, so she doesn't inadvertently turn it towards the camera.

THE COURT: If she would stand over towards the prosecution.

Probably with her back to us and MR. BUTNER: face kind of at an angle so that everybody in the jury see it.

16:10:12	1	MR. SEARS: We have got time to put the screen
16:10:13	2	up, your Honor.
16:10:14	3	THE COURT: We can put the screen up.
16:10:15	4	MR. SEARS: That's simpler.
16:10:16	5	THE COURT: Okay. We will do that, Mr. Butner.
16:10:19	6	No objection to part one from either side.
16:10:23	7	Exhibit 3025, what are the two dark spots on
16:10:28	8	the skull and temple area and lower left above where jaw
16:10:35	9	attaches? Any objection?
16:10:37	10	MR. BUTNER: No objection.
16:10:39	11	MR. SEARS: No objection.
16:10:41	12	THE COURT: We will need to put this on the
16:10:45	13	screen anyway.
16:10:45	14	MR. BUTNER: Right.
16:10:46	15	THE COURT: How many pieces was the skull in?
16:10:55	16	Any objection?
16:10:55	17	MR. BUTNER: No objection.
16:10:58	18	MR. SEARS: No objection.
16:10:59	19	THE COURT: Part four. Can you show us what you
16:11:04	20	mean by using the golf club as a club and how it turns or
16:11:08	21	rotates by swinging the club and showing us what you mean?
16:11:13	22	Any objection, Mr. Butner?
16:11:14	23	MR. BUTNER: No objection.
16:11:15	24	THE COURT: Mr. Sears?
16:11:16	25	MR. SEARS: No objection.

16:11:25	1	THE COURT: Okay. Part four will be asked.
16:11:27	2	Can we hold the golf club to feel its
16:11:31	3	weight?
16:11:32	4	Any objection?
16:11:32	5	MR. BUTNER: No objection.
16:11:33	6	MR. SEARS: No objection.
16:11:34	7	THE COURT: Five, it will be asked.
16:11:37	8	Six. The other two skulls that were worse
16:11:41	9	than this one, what kind of cases were those? Were they
16:11:46	10	crimes of passion or something else?
16:11:50	11	MR. BUTNER: No objection.
16:11:51	12	THE COURT: Mr. Sears?
16:11:52	13	MR. SEARS: No foundation. Relevance. 702. A
16:11:56	14	lot of problems with that.
16:12:00	15	THE COURT: I think she provided a pretty good
16:12:05	16	description of what she meant that made them worse. I am
16:12:09	17	not going to ask six.
16:12:12	18	Page four. Do you know if the brain was
16:12:24	19	damaged much? Would it show a pattern also?
16:12:27	20	Mr. Butner, any objection?
16:12:29	21	MR. BUTNER: No objection.
16:12:30	22	THE COURT: Mr. Sears?
16:12:34	23	MR. SEARS: She didn't receive a brain, nor did
16:12:37	24	she ever examine it. There is no foundation. No possible
16:12:40	25	foundation for that.

16:12:41	1	THE COURT: Mr. Butner, do you know?
16:12:45	2	MR. BUTNER: She did not receive the brain. It
16:12:47	3	had been removed and that was the testimony from Dr. Keen.
16:12:51	4	THE COURT: Then I am not going to ask that part.
16:12:53	5	Is it possible for the skull to bruise? Is
16:13:02	6	it possible for the skull to bruise?
16:13:04	7	Any objection?
16:13:04	8	MR. BUTNER: No objection.
16:13:05	9	THE COURT: Mr. Sears?
16:13:30	10	MR. SEARS: That is a yes or no question.
16:13:31	11	THE COURT: That is a yes or no. That part.
16:13:33	12	MR. SEARS: No objection on that basis.
16:13:34	13	THE COURT: Okay. I will put yes or no.
16:13:39	14	Then there is a second part. Exhibit Number
16:13:46	15	3029, what is the darker shade in the curved pattern?
16:13:49	16	Any objection to that part?
16:13:49	17	MR. BUTNER: No objection.
16:13:50	18	THE COURT: Mr. Sears?
16:13:51	19	MR. SEARS: No objection.
16:13:52	20	THE COURT: That will be asked.
16:13:54	21	Page five, part one. In your opinion, could
16:14:01	22	a wooden dowel one inch to two inch in diameter cause
16:14:04	23	fractures which could penetrate the table of the skull?
16:14:09	24	Any objection?
16:14:10	25	MR. BUTNER: No objection.

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1 16:14:12 MR. SEARS: No objection. 6:14:13 2 THE COURT: Part one will be asked. 16:14:15 3 Number two: Did you see the lacerations on 16:14:22 4 Ms. Kennedy's scalp? 5 16:14:24 Any objection? MR. BUTNER: No objection. 16:14:24 6 MR. SEARS: I think she answered that a number of 7 16:14:26 times that she didn't. 16:14:28 9 THE COURT: I will go ahead and answer -- ask her 16:14:30 10 just for clarification. 16:14:34 Number six, as I have indicated, I think 11 16:14:35 that's something I take up more in isolation from just 16:14:38 12 this witness, but I am thinking Tuesday morning when I 13 16:14:42 address the lighting situation, just to also maybe read 6:14:49 14 Just have it somewhat separated from a particular 15 16:14:53 this. 16 witness. 16:14:58 17 Mr. Butner? 16:14:58 MR. BUTNER: No objection. 16:14:59 18 THE COURT: 19 Mr. Sears? 16:14:59 16:15:00 20 MR. SEARS: When you say this, you mean 21 16:15:01 preliminary jury instructions on --Yeah. Ms. Chapman did provide me a 22 THE COURT: 16:15:03 copy of what was read by Judge Lindberg. I also have just 23 16:15:08 24 the one out of the bench book. 16:15:12

MR. SEARS:

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I think it ought to be read now.

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think there is no reason not to read it now. This is a matter that's fresher in the beginning of the juror's mind about this witness. I think it's responsive to this question. I think it is the proper way to answer this question.

THE COURT: Mr. Butner?

MR. BUTNER: I think it is an unfair comment upon the evidence by the Court at this point in time. It draws specifically towards this witness and I don't think that's appropriate, Judge.

I do believe it would be appropriate to refresh the jury's recollection at a later point in time so they could consider it and the witness' testimony in the totality of all of the evidence and this is basically a reminder in response to this juror's question. That instruction I mean is a reminder of what the Court's instructions were in regards to the juror's question.

But to read it at this point in time would be, in essence, a comment upon the evidence by the Court and how you should view this particular witness' testimony much more carefully than possibly any other witness.

THE COURT: Mr. Sears, anything else on this?

MR. SEARS: Your Honor, I think you said that it
was often your practice to give the preliminary jury
instructions -- copies of them to the jurors.

16:16:34 16:16:37 5 16:16:39 6 16:16:42 7 16:16:47 16:16:48 8 9 16:16:50 16:16:54 10 16:16:58 11 16:17:02 12 16:17:08 13 6:17:11 14 15 16:17:15 16:17:19 16 16:17:20 17 18 16:17:22 19 16:17:24 16:17:26 20 16:17:29 21 22 16:17:32

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I think we can treat this question as a request for a further instruction or some additional information about instruction already given. I can't see how that could ever be a comment or inappropriate comment on the evidence to instruct the jury on the law when a juror has asked for an instruction.

MR. BUTNER: This relates just to one juror, Judge, and --

THE COURT: I know. And that's -- Mr. Sears, my thoughts were along the line of Mr. Butner's. To flag this with this witness present and say this would -- could be construed as having one juror's perception implanted with the others, if you will, and that's why I think there should be some time, but not too much. I mean, so next week it can be addressed, but not in the immediate setting.

MR. BUTNER: And I don't have any objection that the jury be provided with copies of preliminary instructions at this point in time either.

THE COURT: That's another thing to do because that way I can just make a reference to preliminary instructions and that would have simplified this particular issue, if anybody has any -- wants any general information on considering witness testimony, there's a reference to that in your preliminary instructions and

1 16:17:50 then they could look. 6:17:51 2 At this time I am going to follow through 16:17:55 3 with what I indicated initially. I am going to cover this 16:17:58 one next Tuesday with other general matters. 5 And then did you get a legible copy 16:18:02 of the concern from the one juror with the time about 6 16:18:08 7 starting? 16:18:13 MR. BUTNER: I don't have any objection to that, 16:18:15 9 Judge. 16:18:17 10 THE COURT: So there may be some other legal 16:18:18 matters on Tuesday as well. I have some rulings. I have 11 16:18:22 16:18:26 12 been working on some additional rulings. Probably aren't going to be available until 13 16:18:29 16:18:39 14 fairly early Monday. Shortly after eight. In any event I am going to announce a start 15 16:18:41 time at 9:30 for Tuesday. 16:18:45 16 17 Any problem with that? 16:18:50 MR. BUTNER: No. 16:18:52 18 MR. SEARS: Indefinitely? 19 16:18:53 16:18:54 20 THE COURT: Just for this next Tuesday. 21 MR. HAMMOND: The way this thing is written, do 16:18:56 we know how the bridge will be after Tuesday? 16:18:58 22 No, we don't. We don't and I thought 23 THE COURT: 16:19:02 we could just go along for now and see. 16:19:05 24

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MR. BUTNER: Cross that bridge when we get to it.

1 16:19:11 THE COURT: Okay. 16:19:16 2 MR. SEARS: Do you want us here earlier than 9:30 16:19:18 3 on Tuesday? The usual 8:30 rule that I would like 16:19:19 THE COURT: to follow and that is if there are legal matters to take 5 16:19:22 care of, be here by 8:30. I am going to be covering 6 16:19:24 the -- well, that's Tuesday. So you should have the 7 16:19:29 rulings Monday morning actually, if that prompts anything. 16:19:32 8 9 So, yes, by 8:30. 16:19:36 16:19:38 10 MR. SEARS: Thank you. 11 THE COURT: Okay. Why don't I just remain here 16:19:40 16:19:42 12 and bring the jury back in. Phil just informed me of this, and that is 13 16:19:46 that the witness is conversing with Mrs. Democker, I 16:20:32 14 15 guess, is that gist of it. 16:20:35 16 THE BAILIFF: Yes, sir. 16:20:37 THE COURT: At least was something that they --16:20:38 17 the juror noticed. A juror felt it was enough to tell the 16:20:40 18 19 bailiff, so I am going to tell you. 16:20:47 16:20:49 20 MR. SEARS: We will advise Ms. Democker 16:20:53 21 appropriately. THE COURT: We can bring in --22 16:20:54 THE BAILIFF: Let's put the screen up. 23 16:20:59 THE COURT: Let's get the screen up first. 24 16:21:01 16:21:03 25 (Whereupon, witness entered courtroom.)

16:21:03	1	LAURA FULGINITI
16:23:19	2	previously sworn in, resumed the stand:
16:23:19	3	THE COURT: I ask that people stand while the
16:23:21	4	jury enters, please.
16:23:28	5	(Whereupon, the jury entered the courtroom.)
16:24:13	6	THE COURT: Please be seated.
16:24:16	7	The record will show the presence of
16:24:18	8	defendant, all of the attorneys, the jury has now joined
16:24:22	9	us, and Dr. Fulginiti is back on the witness stand.
16:24:25	10	JURY QUESTIONS
16:24:25	11	Dr. Fulginiti, I have jury questions and I
16:24:29	12	will ask them, and after I finish all the questions, the
16:24:32	13	lawyers may choose to follow up.
16:24:33	14	THE WITNESS: Okay.
16:24:34	15	THE COURT: The first question is: When you
16:24:36	16	received the skull, did it still have scalp?
16:24:40	17	THE WITNESS: Yes.
16:24:41	18	THE COURT: Did you see the actual desk or photos
16:24:47	19	of the desk?
16:24:48	20	THE WITNESS: I saw the actual desk.
16:24:50	21	THE COURT: This next question is going to
16:24:56	22	involve looking at some exhibits.
16:24:59	23	Is Exhibits 3027 and 3029 inner or outer
16:25:10	24	table view?
16:25:12	25	So if Mr. Butner will tell me which exhibits

16:25:15 6:25:16 16:25:19 16:25:21 16:25:25 16:25:29 16:25:33 16:25:35 16:25:38 16:25:40 16:25:44 16:25:49 16:25:52 16:25:56 16:26:00 16:26:04 16:26:06 16:26:08 16:26:13 16:26:18

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MR. BUTNER: I have placed Exhibit 3027 on the overhead at this time, Judge.

THE WITNESS: Exhibit 3027 is a view of the outer table of the right side of Carol's head.

THE COURT: Then is Exhibit 3029 inner or outer table view?

MR. BUTNER: And this is Exhibit 3029 that I have just placed on the overhead.

THE WITNESS: Exhibit 3029 is the outer table of the left side of Carol's head.

THE COURT: In Exhibit 3025, what are the two dark spots on the skull and temple area and lower left above where jaw attaches?

THE WITNESS: Okay. Can I clarify what we mean?

MR. BUTNER: Exhibit 3025 is on the overhead.

THE COURT: Okay. I will read the question again, Dr. Fulginiti. In Exhibit 3025, what are the two dark spots on the skull and temple area and lower left above where jaw attaches?

THE WITNESS: Okay. On the two spots above here, these dark spots are staining from the scalp and soft tissue and the same for this sort of line of darkness.

That's just staining from the soft tissue.

THE COURT: How many pieces was the skull in?

16:26:48 6:26:51 16:26:55 16:27:01 16:27:04 16:27:10 16:27:13 16:27:18 16:27:22 16:27:29 16:27:30 16:27:32 16:27:43

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THE WITNESS: I think in my report I said more than 50, but in actuality if you count all the little pieces of the sinuses, etcetera, it's well over 200.

THE COURT: And the next question will require having the demonstrative exhibit, the club, the golf club. And it is this: Can you show us what you mean by using the golf club as a club and how it, quote, turns, unquote or rotates, quote, unquote by swinging the club and showing us what you mean?

THE WITNESS: May I stand down?

Yes, please. Wherever it's THE COURT: convenient for you, and that's 2977 for demonstrative purposes. That number.

It is 2977 the clerk is telling me.

So Dr. Fulginiti, did you hear the question? THE WITNESS: They want to know how it turns in your hands?

THE COURT: Can you show us what you mean by using a golf club as a club and how it turns, rotates by swinging the club and showing us what you mean.

When I was using the club, I was THE WITNESS: trying to figure out how or what would happen I guess, and it was an accidental finding. It wasn't something that I expected to have happen, but when you hold the club loosely and I kind of choked up on it a little bit, it

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turns so that the back end of it, the weighted side of it turns. Instead of hitting it as like you would a golf club, it turns in your hand, if you can see what I mean by that. It turns to the way it's weighted. And so if you're just holding it loosely or if you are choking up on it, not using it as a club, it changes the face of what is actually impacting the structure. Does that make sense?

THE COURT: Phil, just hang on to the exhibit there for a moment.

Dr. Fulginiti, you can have a seat there, but the next question was can: We hold the golf club to feel its weight.

So if you would go ahead and pass the club through the jury. Anybody who wishes to handle the club may.

Counsel, while the jury is looking at the exhibit there, the golf club -- really one of the jurors had some concern about having gloves on when handling the exhibit. I phrased the question anybody who wanted to handle the golf club and this is always what I tell people who are on juries in cases -- and I think I might have mentioned it earlier, Ladies and Gentlemen -- anybody who wants to wear gloves while handling any exhibit, you can do that. We have those. You don't have to handle the exhibit if you don't want to, but the question may

1 actually relate to putting fingerprints on this particular <u>1</u>6:31:51 6:31:55 2 club. 16:31:57 Either side have any concern about that? 16:31:59 Mr. Butner? MR. BUTNER: No, Judge. Not from the State's 5 16:32:00 6 We have already heard about that point of view. 16:32:02 particular golf club and where it came from. 16:32:05 7 THE COURT: Mr. Sears? 16:32:07 9 I agree. 16:32:08 MR. SEARS: 16:32:09 10 THE COURT: Okay. Doctor, this a yes or no 16:32:26 11 question. Is it possible for the skull to bruise, if you 16:32:34 12 can answer that. 13 THE WITNESS: I have to say yes or no? 16:32:35 THE COURT: It's phrased in that way. 16:32:40 Is it 14 possible? The lawyers may wish to follow up, but if you 15 16:32:41 can't answer it yes or no, I guess that is what you have 16:32:44 16 17 to say. 16:32:46 18 THE WITNESS: The answer is yes. 16:32:47 19 THE COURT: Pardon? 16:32:48 16:32:49 20 THE WITNESS: Yes. THE COURT: All right. Then looking at Exhibit 16:32:50 21 3029, so I guess we need to have the screen once again. 16:32:55 22 23 Do we have 3029 handy? 16:33:00 MR. BUTNER: I will get 3029. No fair laughing. 24 16:33:02 25 I did this. Of course. 16:33:29

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THE COURT: The question --

MR. BUTNER: I am putting 3029 on the overhead projector at this time, Judge.

THE COURT: Thank you. Number 30 --

MR. BUTNER: I'm trying to get it focused. Just a second. Okay.

THE COURT: The question is Number 3029, what is the darker shade in the curved pattern?

THE WITNESS: Can I just first say I really appreciate jury questions because they force you to look at things that you never thought about before.

That sharper -- that, begin again -- the darker shade in the middle of that area is an area of soft tissue, ah, leaching through the bone. So, in other words, the head may have been dependent on that particular spot and so the blood flows into it. I believe this is the left side, so, Mr. Sears, you told me she was on her right side.

So there may have been a point during the event when she was on her left side and you see this. I think maybe what might be going on here, just based on the shape, is that you're wondering if it could be an imprint. I never really thought about it that way, but I don't -- I am not sure.

THE COURT: In your opinion, could a wooden dowel

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one inch -- start again -- in your opinion, could a wooden dowel one inch to two inch in diameter cause fractures which could penetrate the table of the skull?

THE WITNESS: I think that it is dependent on the weight rather than the size, so if you had a wood that was particularly heavy or if it was weighted in someway, then yes, that is a possibility.

The size is less important than the heft or the weight of the object that we are talking about.

THE COURT: Did you see the lacerations on Ms. Kennedy's scalp?

THE WITNESS: I have seen photographs of the lacerations. I saw the lacerations on her scalp when I did my examination.

I would just like to clarify by saying that it was a period of time after the death that I saw those lacerations.

Counsel, I did get one last jury THE COURT: question that was handed to me, and I'd like to go over that before I ask you for follow-up questions. we will have all the questions in for the follow-up. going to ask this one, so again, Ladies and Gentlemen, please feel to stand and stretch while I talk to the lawyers side bar.

(Discussion held off the record.)

16:37:37 1 MR. BUTNER: We need 3025, right? 16:37:40 2 THE COURT: Yes. 3025. 16:37:43 3 MR. BUTNER: Thank you. The last question is: 16:38:01 THE COURT: Is tissue staining caused by damage to tissue? And this is re: 16:38:07 5 6 Exhibit 3025. 16:38:12 THE WITNESS: Again, I think we are talking about 7 16:38:13 these dark colored stains on the skull here and here. 16:38:15 Tissue staining typically occurs during the decomposition 9 16:38:24 process, so as the body's decomposing, the bone is in 10 16:38:27 11 contact with the tissue. There's some seepage both from 16:38:32 the outside in, and also the diploe inside the skull. 16:38:35 12 Remember, we talked about the inside and the outside. 16:38:39 13 There's that spongy bone in the middle. It has its own 16:38:41 14 15 blood supply, so sometimes that can also leach through. 16:38:45 I think conservatively you say tissue 16 16:38:48 staining is not necessarily where an injury can occur; 16:38:53 17 however, I have seen it in, especially in fresher cases 16:38:56 18 where the injury is more recent, where there is a bruise 19 16:39:01 20 underneath where an impact may have occurred. 16:39:06 16:39:10 21 THE COURT: Thank you. Follow-up questions? 22 Mr. Butner? 16:39:11 REDIRECT EXAMINATION 23 16:39:12 Thanks, Judge. 24 MR. BUTNER: 16:39:12 Just to clarify that your last series of answers, Q 25 16:39:14

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when you say fresher cases, you're talking about the fact that you work on cases where bodies are retrieved from the desert that died years earlier, right?

A Or months.

Q As compared with much more recent types of injuries?

A That's correct. You know, where the tissue is very decomposed, so you see a lot more staining like what we're seeing here.

Q So in this particular case, is this a, what you would consider, a very fresh type of case?

A Yes. It would have been, but we have to take into account the fact that I didn't see it right away. So there was a little bit of time for some decomposition to occur. Maybe not a lot, but yes.

Q Do you have an opinion about these stains as to what the causation was for them?

A I think very interesting observation and in some ways I wish I had seen it sooner because I might have more opinion about it. Again the conservative view would be this is tissue staining as opposed to an impact or a bruise to the bone.

Q And that is your opinion basically in this regard?

A Yes. Yes.

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Q Judge I want to show -- there was a question about -- do you recall the question about the outer table of two exhibits and I believe those were Exhibits Number 3027 and 3029?

A Yes.

Q And you indicated that was the outer table on each of those two exhibits; is that correct?

A Yes.

Q And then showing you Exhibit Number 3030, is this the inner or outer table depicted in this particular exhibit?

A This is the inner table and maybe for the purposes of the jury, do you see the little grooves in the bone? These little rivulets? Those are venous tracks, arterial tracks where the vessels lay against the bone and actually carve out like a river would. When you see those, you're typically looking at the inside of the skull. Now, it does occur on the outside, but in general that is a good rule of thumb that you can use.

Q So Exhibit 3029 and 3027 are outer table views and then 3030 is an inner table view, correct?

A That is correct.

MR. BUTNER: No further questions. Thank you.

THE COURT: Thank you, Counsel.

Mr. Sears.

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RECROSS-EXAMINATION

MR. SEARS:

Doctor, you were asked a few questions here by our jury about the scalp and the lacerations. When the head came to you in a box, it still had flesh and some tufts of hair on it, correct?

- Yes.
- That was surprising to you, right?
- Α Yes.
- Why? Q

I can think of only two other times when I received an entire head and they were both from out of county jurisdictions where they didn't have the facility to do the maceration, so they sent me the entire head. Typically in a case like this, the soft tissue is removed down to the bone and then I get it at that point.

In this case because it hadn't been, that's the first thing that you did, correct?

A Yes.

So you used a scalpel and then the rest of the process.

So you didn't examine the lacerations such as they were on the scalp when you saw it, right?

I looked at them, but I didn't measure them or photograph them.

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Q The face and scalp were terribly deformed, weren't they?

A Yes.

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Q In fact, the scalp had been reflected twice, once at autopsy and then again when Dr. Keen let the police come in with the golf club and stage those photographs with the golf club? That would be two times that the scalp had been reflected?

A I know it occurs during autopsy and if you say it occurred again, then that is true.

Q When this happens, that changes dramatically the relationship of the lacerations on the scalp to the underlying fractures, right?

A Yes.

Q To the point where you really can't make an examination of the scalp because you have lost all of the tension --

A You have lost --

Q -- and integrity of the face, correct?

A You have lost the tension and integrity, but you can reapproximate just the same way you do with a skull. You have to just make the caveat or the warning that if there has been some distortion of the injuries with that process, the more you manipulate the scene, the looser it gets.

16:44:22 1 Q T6:44:24 2 16:44:26 16:44:26 Q 16:44:31 5 6 16:44:35 16:44:37 7 Α No. 16:44:39 9 16:44:40 Q 10 16:44:42 11 Α No. 16:44:44 12 Q 16:44:44 16:44:47 13 16:44:49 14 case, correct? 15 A Yes. 16:44:50 16:44:53 16 16:44:55 17 16:44:59 18 is that right? 19 16:45:02 20 A Yes. 16:45:02 16:45:03 21 Q 16:45:05 22 23 16:45:08

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But that doesn't matter because in any event you didn't do any of that in this case, correct?

- That's correct.
- And when you were handling the golf club and talking about choking up, you actually have no idea if -assuming a golf club was used in this case, how it was actually wielded by the attacker, do you?
- Whether it was held close to the head or two hands or anything about that?
- Whether it was swung wildly over the head? mean that is all beyond the scope of your work in this
- The desk -- I am a little interested in you getting to see the desk. That was on March 5th of this year, when we had our interview, you were shown the desk;
- Was it your understanding that the police had just come into possession of the desk shortly before that?
- I thought that is what they said the I think so. A day that I was here.
 - Do you remember what they said? Q

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- A That they had just taken it into custody or -- within a few days or weeks, something like.
 - **Q** March of 2010?
 - A Was that this year? Yes.
- **Q** As opposed to July of 2008 when this event occurred?
 - A Yes.
- **Q** That was your understanding from your conversations with the police; is that right?
 - A Yes.
- Q Now, you said that you looked at the curve of the desk and the desk curved the wrong way for the injury; is that right?
 - A Yes.
- Q Okay. So if you are looking at the front of the desk, it bowed in which direction? Did it bow out into the room or back towards the back wall?
 - A I don't remember.
 - Q Well, it would have been one or the other, right?
 - A It had sort of an "S" shape to it.
 - Q So it had sort of an "S" shape.

And you said because of the fact that the curved aspect of this fracture on the right side was in a particular position, you thought that the curve in the desk was just backwards, right?

16:46:08 16:46:08 16:46:11 16:46:14 16:46:18 16:46:26 16:46:29 16:46:32 16:46:35 16:46:39 16:46:41 16:46:44 16:46:48 16:46:50 16:46:53 16:46:54 16:46:55 16:46:56 16:46:58 16:47:05 16:47:07 16:47:18

A Yes.

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Q That's assuming that Carol struck the desk face on, correct? That she was standing out here and she struck the desk in one particular direction, right?

A Okay. Just a second. I have to think three dimensionally. If I understand your question correctly, I'm putting her in a particular position relative to the desk. Could I turn her in any way to make her -- make that injury fit? I think the answer is no. It didn't match. It was a non-match.

Q They're was no possible way her body could be turned or her head be turned to get the angle, the curve of the desk to line up with the curve on her skull?

- A My memory is I could not make it work.
- You thought that through?
- A Yes.
- **Q** Could you be wrong?
- A Yes.

Q Let me show you this photograph. This is 3029, and you talked -- if I understood what you were saying was that, for example, on 3025, did I hear you say that the dark spots that you see there, you think are tissue staining?

- A That's what I think.
- Q Not an impact. Okay. And it looks to me like

Here's the

16:47:27 3029 is a close-up, and I will show you 3025 here and you 1 16:47:40 2 tell me if I am right. Is 3029 on the screen an 16:47:43 enlargement of this portion of 3025? 16:47:45 Α Yes, it is. So that's another mark on the skull that you 16:47:46 attribute to tissue staining, right? 16:47:48 It is interesting. I think the conservative 16:47:51 7 point of view would be that it is tissue staining. 16:47:59 Okay. You think maybe somebody wants to see a 9 16:48:01 Q 10 golf club head there? 16:48:05 11 Yes, I do. 16:48:06 A 12 Okay. Now, let's talk about why that, apart from 16:48:06 Q the fact that it's -- that it could be tissue staining, 16:48:09 13 there are, as you describe it -- and let me have your --16:48:12 14 deal here. You talked about points of impact. 15 16:48:16 cross at that point of impact, correct? 16:48:18 16 16:48:22 17 A Yes. Here is the point of impact up here, correct? 16:48:22 18 Q Um, maybe. I don't like that so much. 16:48:24 19 A Okay. Over in this scalloped fracture, points of 16:48:26 20 Q 16:48:29 21 impact? 22 A Yes. 16:48:30 There is no readily apparent 23 Q Okay. 16:48:30 through-and-through, through the outer table impact in the 24 16:48:34

area of this stain, correct?

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- A Yes.
- Q Is that right?
- A Yes.

Q Okay. And so this is a large fracture. If this is all one event here, you said it may have been bisected by this into a smaller fracture, but this is one pretty significant fracture of the skull, correct?

A Yes.

Q Okay. And you would expect that if there was an impact image, if somehow mysteriously a golf club could penetrate all the soft tissue and leave some mark on the skull of Carol Kennedy, it would be at or near one of these recognized points of impact and not in the middle of the fracture, correct?

- A I am going to bring up your cup. Can I do that?
- Q Sure.
- A This cup.
- Q Sure.
- A Not your other cup.

Remember you were asking me about if the river rock had an extension on it?

- Q Uh-huh.
- A What if we're looking at a similar type of thing here where there is a leading edge that is that shape and then a bigger part of it is actually what caused the

1 16:49:32 fracture. 16:49:33 A lot of what ifs in that answer, right? 16:49:35 A Yes. But I am just saying you can't rule that 16:49:37 4 out. And that's one of the things about the work 5 16:49:38 Q No. that you do is that every time you see something, there 16:49:40 are a number of possible plausible explanations, right? 16:49:43 7 Yes. Absolutely. 16:49:46 But your first impression, if I understand it, 16:49:47 10 was that's tissue stain? 16:49:49 11 Yes. 16:49:50 A Okay. And that's not the golf club because it's 12 16:49:51 Q not big enough, is it? 16:49:54 13 I'm sorry. What's not big enough? 16:49:56 14 A 15 This impression here is perhaps three 16:49:59 centimeters? 16:50:05 16 I think if you look at the metal plate on the 17 16:50:06 A golf club, it might -- I mean that is what I thought of 16:50:09 18 19 when the jury brought that forward, was the metal plating 16:50:11 16:50:17 20 maybe. 16:50:17 21 Q But there is no fracture? It never occurred to me before a fresh pair of 16:50:18 22 A eyes looked at it. 23 16:50:20 Okay, but there is no fracture. 24 Q 16:50:21

There is no facture.

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16:50:23	1	Q	Anywhere within the boundaries of that?
16:50:24	2	A	No. That is true.
16:50:25	3	Q	And you would think in order to leave a mark on a
16:50:28	4	human ski	ull, that would have been one powerful impact,
16:50:31	5	right?	
16:50:31	6	A	Yes.
16:50:31	7	Q	Okay.
16:50:32	8	A	Well, it created all the fractures you see around
16:50:35	9	it. It	could have.
16:50:36	10	Q	It didn't fracture the bone directly around it,
16:50:38	11	correct?	
16:50:39	12	A	Around the stain?
16:50:41	13	Q	Yes.
16:50:41	14	A	Correct.
16:50:43	15	Q	Thanks.
16:50:44	16		No other questions.
16:50:46	17		THE COURT: Mr. Butner.
16:50:48	18		MR. BUTNER: No further questions, Judge. Thank
16:50:49	19	you.	
16:50:49	20		THE COURT: May Dr. Fulginiti be excused as a
16:50:53	21	witness?	
16:50:54	22		MR. BUTNER: Judge, I would ask that she be
16:50:56	23	subject	to recall.
16:50:58	24		THE COURT: Okay.
16:50:59	25		MR. BUTNER: Thank you.

16:51:00 1 THE COURT: Doctor, you will be excused at this 6:51:02 2 time, anyway, subject to recall. You indicated to me you 16:51:06 3 understand what the rule of exclusion of witnesses means, 16:51:08 so you will abide by that, of course. 5 THE WITNESS: Yes. 16:51:10 THE COURT: Please watch your step. You are 6 16:51:10 7 excused at this time. 16:51:12 THE WITNESS: Thank you very much. 16:51:13 9 THE COURT: You're welcome. 16:51:14 THE WITNESS: Thank you, jury, for your 16:51:15 10 11 attention. 16:51:17 16:51:18 12 JURORS: Thank you. THE COURT: Ladies and Gentlemen, we will go 13 16:51:18 ahead and take the weekend recess at this time. 16:51:20 14 Please remember the admonition, all aspects 15 16:51:23 of that admonition. We are going to start a little bit 16:51:26 16 later when we come back on Tuesday, August 31st. We will 17 16:51:28 start at 9:30 a.m. on that day. There may be some other 16:51:32 18 matters I need to attend to prior to that, but 9:30 a.m. 19 16:51:38 16:51:41 20 Please be assembled at that time. We will start as soon 16:51:44 21 as we can after 9:30. So take care. I will see you next Tuesday 16:51:45 22 23 and we're in recess. Thank you. 16:51:48 ---000---24

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CERTIFICATE

I, SANDRA K MARKHAM, Certified Reporter, do hereby certify that the foregoing pages constitute a true and accurate transcript of the proceedings had and

testimony given in the hearing of the matter entitled as

September 6, 2010. Dated:

upon the first page hereof.

Sandra K Markham, CR, RPR, CSR

Certified Reporter

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